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SMITHSONIAN INSTITUTION.
UNITED STATES NATIONAL MUSEUM.

SPECIAL BULLETIN.

OCEANIC ICHTHYOLOGY,

A TREATISE ON THE

DEEP-SEA AND PELAGIC FISHES OF THE WORLD,

BASED CHIEFLY UPON

THE COLLECTIONS MADE BY THE STEAMERS BLAKE, ALBATROSS, AND FISH HAWK IN THE NORTHWESTERN ATLANTIC,

WITH

AN ATLAS CONTAINING 417 FIGURES,

BY

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S. P. LANGLEY,
Secretary of the Smithsonian Institution.

WASHINGTON, D. C., JUNE 3, 1895.

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NOTE.—The actual size of the specimens from which the figures are drawn may, in most instances, be determined by the use of the inch mark beneath the engraving, which in the photographic reduction of the drawing is reduced in the same proportion as the drawing itself. Where this is not present, the scale of reduction is approximately indicated in this list of plates, except in the case of outlines copied from published figures and of large species of very variable length, such as the sharks and rays. Where no reference to length appears either upon the plate or in the list of figures, it may be assumed that the figure is of natural size, or nearly so.

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28. **Raia hyperborea**, Collett 28
Outline from Collett, Fishes Norwegian North Atlantic Expedition, Pl. IX.

29. **Raia lævis**, Mitchill 28
Drawing by H. L. Todd, from No. 21577, U. S. N. M., collected by the steamer *Fish Hawk* at Station 771, in Narragansett Bay, at a depth of 8½ fathoms.

30. **Raia granulata**, Gill 29
Drawing by H. L. Todd, from the type specimen, collected by Capt. Joseph W. Collins, of the Gloucester fishing fleet, on Le Have Bank. (About one-fourteenth natural size.)

PLATE X.

Text page.

31. **Chimæra monstrosa**, Linnæus 31
Outline from Bonaparte, Fauna Italica, Pl. 130.

32. **Chimæra affinis**, Capello 31
Drawing by H. L. Todd, from a specimen collected on the southeastern portion of Le Have Bank, in N. lat. 42° 40′, W. lon. 63° 23′. (About one-seventh natural size.)

33–35. **Chimæra affinis**, Capello 31
Drawings by S. F. Denton, from a specimen collected by the schooner *Centennial*, Capt. D. C. Murphy, off Banquereux, in N. lat. 43° 46′, W. lon. 59° 19′. (Natural size.)

36. **Callorhynchus antarcticus**, (Linnæus) 32
Outline from Zoölogy of Beechey's Voyage, Pl. XXIII.

PLATE XI.

37, 38. **Harriotta Raleighana**, Goode and Bean 33
Drawings by M. M. Smith, from No. 35631, U. S. N. M., collected by the steamer *Albatross* at Station 2235, in N. lat. 39° 12′ 00″, W. lon. 72° 03′ 30″, at a depth of 707 fathoms.

39, 40. **Harriotta Raleighana**, Goode and Bean 33
Drawings by S. F. Denton, from No. 35520, U. S. N. M., collected by the steamer *Albatross*, at Station 2210, in N. lat. 39° 37′ 45″, W. lon. 71° 18′ 45″, at a depth of 991 fathoms. (About one-and three-fourths natural size.)

PLATE XII.

41. **Alepocephalus rostratus**, Risso 36
Outline from Cuvier and Valenciennes, Histoire Naturelle des Poissons de la France, Pl. 566.

42. **Alepocephalus niger**, Günther 38
Outline from Günther, Challenger Report, Vol. XXII, Pl. LVI.

43. **Conocara macroptera**, (Vaillant), Goode and Bean 39
Outline from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XI, Fig. 2.

44. **Bathytroctes macrolepis**, Günther 41
Outline from Günther, Challenger Report, Vol. XXII, Pl. LVII, Fig. A.

PLATE XIII.

45. **Alepocephalus Agassizii**, Goode and Bean 37
Drawing by H. L. Todd, from No. 33056, U. S. N. M., collected by the steamer *Albatross* at Station 2030, in N. lat. 39° 29′ 45″, W. lon. 71° 43′, at a depth of 588 fathoms.

46. **Alepocephalus productus**, Gill 37
Drawing by H. L. Todd, from type No. 33341, U. S. N. M., collected by the steamer *Albatross* at Station 2035, in N. lat. 39° 26′ 16″, W. lon. 70° 02′ 37″, at a depth of 1,362 fathoms.

47. **Alepocephalus Bairdii**, Goode and Bean 38
Drawing by H. L. Todd, from type No. 22468, U. S. N. M. (Gloucester Donation No. 305), collected by Christian Johnson, of the schooner *William Thompson*, on the Grand Banks, in 200 fathoms. (About one-fourth natural size.)

48. **Conocara McDonaldi**, Goode and Bean 39
Drawing by S. F. Denton, from a specimen collected by the steamer *Blake* at Station CLXXII, in N. lat. 24° 36′, W. lon. 84° 05′, at a depth of 955 fathoms.

PLATE XIV.

49. **Bathytroctes antillarum**, Goode and Bean 44
Drawing by M. M. Smith, from type No. 43739, U. S. N. M., collected by the steamer *Albatross* at Station 2394, in N. lat. 28° 38′ 30″, W. lon. 87° 02′, at a depth of 420 fathoms.

50. **Bathytroctes æquatoris**, Goode and Bean 44
Drawing by A. H. Baldwin, from a specimen obtained by the steamer *Albatross* at Station 2793, in N. lat. 01° 03′, W. lon. 80° 15′, at a depth of 741 fathoms.

51. **Aleposomus Copei**, Gill 47
Drawing by H. L. Todd, from type No. 33551, U. S. N. M., collected by the steamer *Albatross* at Station 2099, in N. lat. 37° 12′ 20″, W. lon. 69° 39′, at a depth of 2,949 fathoms.

Text page.

52. **Pterothissus gissu**, Hilgendorf 51
Outline from Günther, Challenger Report, Vol. XXII, Pl. LVI, Fig. A. (About one-half natural size.)

PLATE XV.

53. **Platytroctes apus**, Günther 46
Outline from Günther, Challenger Report, Vol. XXII, Pl. LVIII, Fig. A.

54. **Anomalopterus pinguis**, Vaillant 49
Outline from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XI, Fig. 4.

55. **Aulastomatomorpha phosphorops**, Alcock 50
Outline from Wood-Mason, Natural History Notes from H. M. Indian survey steamer *Investigator*, No. 21, Fig. 1. (One-half natural size.)

56. **Leptoderma macrops**, Vaillant 49
Outline from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XII, Fig. 2.

PLATE XVI.

57. **Xenodermichthys nodulosus**, Günther 46
Outline from Günther, Challenger Report, Vol. XXII, Pl. LVIII, Fig. C.

58. **Aleposomus socialis**, (Vaillant), Goode and Bean 48
Outline from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XIII, Fig. 1.

59. **Microstoma rotundatum**, (Risso), Günther 53
Outline from Cuvier and Valenciennes, Histoire Naturelle des Poissons de la France, Vol. XVIII, Pl. 544.

60. **Harpodon macrochir**, Günther 59
Outline from Günther, Challenger Report, Vol. XXII, Pl. XLVII, Fig. A.

PLATE XVII.

61. **Argentina silus**, (Ascanius), Nilsson 52
Drawing by H. L. Todd, from No. 37801, U. S. N. M., collected by E. H. Bunker, Fletchers Neck Life-Saving Station, Biddeford, Me. (About one-half natural size.)

62. **Argentina striata**, Goode and Bean 52
Drawing by A. H. Baldwin, from type No. 43858, U. S. N. M., collected by the steamer *Albatross* at Station 2402, in N. lat. 28° 36′, W. lon. 85° 33′ 30″, at a depth of 111 fathoms.

63. **Bathylagus euryops**, Goode and Bean 55
Drawing by A. H. Baldwin, from 31861, U. S. N. M., collected by the steamer *Albatross* in N. lat. 39° 52′, W. lon. 70° 30′, at a depth of about 600 fathoms.

64. **Bathylagus Benedicti**, Goode and Bean 55
Drawing by A. H. Baldwin, from a specimen collected by the steamer *Albatross* at Station 2711, in N. lat. 38° 59′, W. lon. 70° 07′, at a depth of 1,344 fathoms.

PLATE XVIII.

65, 66. **Bathysaurus ferox**, Günther 58
Drawings by H. L. Todd, from a specimen obtained by the steamer *Blake* at Station CCCXLI, in N. lat. 39° 38′ 20″, W. lon. 70° 56′, at a depth of 1,241 fathoms.

67, 68. **Ipnops Murrayi**, Günther 67
Drawings by H. L. Todd, from a specimen collected by the steamer *Blake* at Station CCXXXIII, in N. lat. 24° 36′, W. lon. 84° 05′, at a depth of 955 fathoms. (No. 67, three times natural size; No. 68, one and a half times.)

69. **Bathylaco nigricans**, Goode and Bean 57
Drawing by A. H. Baldwin, from the type specimen collected by the steamer *Blake* at Station XXXIX, off Santa Cruz, in 2,393 fathoms.

PLATE XIX.

70. **Chlorophthalmus Agassizii**, Bonaparte 60
Drawing by A. H. Baldwin, from a specimen collected by the steamer *Albatross* at Station 2314, in N. lat. 32° 43′, W. lon. 77° 51′, at a depth of 159 fathoms.

71. **Chlorophthalmus chalybeius**, Goode 60
Drawing by H. L. Todd, from No. 26092, U. S. N. M., collected by the steamer *Fish Hawk* at Stations 876–878, off Marthas Vineyard, in 120–142½ fathoms. (About one and a half times natural size.)

Text page.

72. **Chlorophthalmus truculentus**, Goode and Bean 61
Drawing by M. M. Smith, from the type specimen collected by the steamer *Blake* at Station LII, off Barbados, in 218 fathoms.

73. **Benthosaurus grallator**, Goode and Bean 62
Drawing by H. L. Todd, from a specimen collected by the steamer *Blake* at Station CLXXIV, in N. lat. 24° 23′, W. lon. 84° 23′, at a depth of 1,850 fathoms.

PLATE XX.

74. **Bathypterois dubius**, Vaillant 64
Outline from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. IX.

75. **Bathypterois quadrifilis**, Günther 65
Drawing by A. H. Baldwin, from a specimen collected by the steamer *Blake* at Station XCVIII, off St. Vincent.

76. **Bathypterois longipes**, Günther 66
Drawing by M. M. Smith, from No. 35635, U. S. N. M., collected by the steamer *Albatross* at Station 2225, in N. lat. 36° 05′ 30″, W. lon. 69° 51′ 45″, at a depth of 2,512 fathoms.

PLATE XXI.

77. **Rondeletia bicolor**, Goode and Bean 68
Drawing by H. L. Todd, from type No. 38202, U. S. N. M., collected by the steamer *Albatross* at Station 2724, in N. lat. 36° 47′, W. lon. 73° 25′, at a depth of 1,641 fathoms. (Enlarged one-half.)

78. **Cetomimus Gillii**, Goode and Bean 69
Drawing by M. M. Smith, from type No. 35529, U. S. N. M., collected by the steamer *Albatross* at Station 2206, in N. lat. 39° 35′, W. lon. 71° 24′ 30″, at a depth of 1,043 fathoms.

79. **Cetomimus Storeri**, Goode and Bean 69
Drawing by M. M. Smith, from type No. 35634, U. S. N. M., collected by the steamer *Albatross* at Station 2222, in N. lat. 39° 03′ 15″, W. lon. 70° 50′ 45″, at a depth of 1,535 fathoms.

PLATE XXII.

80. **Myctophum punctatum**, Rafinesque 71
Drawing by H. L. Todd, from No. 23369, U. S. N. M., collected by Capt. Matt. Ryan and crew, Gloucester fishing fleet, on the Grand Bank.

81. **Myctophum opalinum**, Goode and Bean 72
Drawing by J. C. Van Hook, from No. 43798, U. S. N. M., collected by the steamer *Albatross* at Station 2585, in N. lat. 39° 08′ 30″, W. lon. 72° 17′, at a depth of 542 fathoms. (Natural size.)

82. **Myctophum Humboldtii**, (Risso), Goode and Bean 73
Drawing by J. C. Van Hook, from No. 43772, U. S. N. M., collected by the steamer *Albatross* at Station 2727, in N. lat. 36° 35′, W. lon. 74° 03′ 30″, at a depth of 1,239 fathoms.

83. **Myctophum Benoiti**, (Cocco), Goode and Bean 74
Drawing by A. H. Baldwin, from a specimen collected at Messina, Italy, by Prof. H. H. Giglioli.

84. **Myctophum remiger**, Goode and Bean 75
Drawing by J. C. Van Hook, from type No. 43792, U. S. N. M., collected by the steamer *Albatross* at Station 2573, in N. lat. 40° 34′ 18″, W. lon. 66° 09′ 00″, at a depth of 1,742 fathoms.

85. **Benthosema Mülleri**, Goode and Bean 76
Drawing by A. H. Baldwin, from No. 28839, U. S. N. M., collected by the steamer *Fish Hawk* at Station 953, in N. lat. 39° 52′ 30″, W. lon. 70° 17′ 30″, at a depth of 724 fathoms.

PLATE XXIII.

86. **Lampanyctus crocodilus**, (Risso), Goode and Bean 79
Drawing by A. H. Baldwin, from a specimen collected at Nice, and obtained through the Royal Zoölogical Museum at Florence, Italy.

87. **Lampanyctus Gemellarii**, (Cocco), Goode and Bean 80
Drawing by A. H. Baldwin, from No. 44170, U. S. N. M., obtained from Messina by Prof. H. H. Giglioli, director of the Royal Zoölogical Museum, Florence, Italy.

88. **Lampanyctus gemmifer**, Goode and Bean 80
Drawing by A. H. Baldwin, from type No. 35604, U. S. N. M., collected by the steamer *Albatross* at Station 2201, in N. lat. 39° 39′ 45″, W. lon. 71° 35′ 15″, at a depth of 538 fathoms.

PLATE XXIV.

Text page.

89. **Lampanyctus lacerta**, Goode and Bean 81
Drawing by A. H. Baldwin, from type No. 43778, U. S. N. M., collected by the steamer *Albatross* at Station 2401, in N. lat. 28° 38′ 30″, W. lon. 85° 52′ 30″, at a depth of 142 fathoms.

90. **Lampanyctus Güntheri**, Goode and Bean 79
Drawing by A. H. Baldwin, from type No. 43777, U. S. N. M., (Gloucester Donation No. 199), collected by the schooner *John Smith*, Capt. Peter Johnson, on Georges Bank, in 45 fathoms.

91. **Ceratoscopelus maderensis**, (Lowe), Goode and Bean 82
Drawing by J. C. Van Hook, from No. 43776, U. S. N. M., collected by the steamer *Albatross* at Station 2528, in N. lat. 41° 47′, W. lon. 65° 37′ 30″, at a depth of 677 fathoms. (Nearly twice natural size.)

92. **Lampanyctus alatus**, Goode and Bean 79
Drawing by A. H. Baldwin, from type No. 43769, U. S. N. M., collected by the steamer *Albatross* at Station 2393, in N. lat. 28° 43′, W. lon. 87° 14′ 30″, at a depth of 525 fathoms.

93. **Diaphus theta**, Eigenmann and Eigenmann 89
Drawing by A. H. Baldwin, from the type specimen taken at moderate depth off Point Loma, near San Diego, Cal.

PLATE XXV.

94. **Notoscopelus resplendens**, (Richardson), Goode and Bean 83
Copied by A. H. Baldwin, from Richardson, Voyage of the Erebus and Terror, Pl. XXVII, Fig. 16.

95. **Notoscopelus castaneus**, Goode and Bean 84
Drawing by A. H. Baldwin, from type No. 31706, U. S. N. M., collected by the steamer *Fish Hawk* at Station 1113, in N. lat. 39° 57′, W. lon. 70° 37′, at a depth of 192 fathoms.

96. **Notoscopelus caudispinosus**, (Johnson), Goode and Bean 84
Drawing by A. H. Baldwin, from No. 43768, U. S. N. M., collected by the steamer *Albatross* at Station 2569, in N. lat. 39° 26′, W. lon. 68° 03′ 30″, at a depth of 1,782 fathoms.

PLATE XXVI.

97. **Notoscopelus quercinus**, Goode and Bean 83
Drawing by A. H. Baldwin, from type No. 43789, U. S. N. M., (Gloucester Donation No. 822), collected by Capt. Frank Carroll and crew, of the schooner *Polar Wave*, off St. Peter's and Banquereux.

98. **Notoscopelus margaritiferus**, Goode and Bean 84
Drawing by A. H. Baldwin, from No. 43774, U. S. N. M., (Gloucester Donation 404), collected by Capt. G. H. Curtis and crew, of the schooner *Conductor*, in N. lat. 44° 10′, W. lon. 58°, at a depth of 300 fathoms.

99. **Lampadena speculigera**, Goode and Bean 85
Drawing by J. C. Van Hook, from type No. 43797, U. S. N. M., collected by the steamer *Fish Hawk* at Station 797, off Newport, R. I., at a depth of 16½ fathoms.

100. **Collettia Rafinesquei**, (Cocco), Goode and Bean 88
Drawing by H. L. Todd, from No. 33550, U. S. N. M., collected by the steamer *Albatross*, at Station 2099, in N. lat. 37° 12′ 20″, W. lon. 69° 39′ 00″, at a depth of 2,949 fathoms.

PLATE XXVII.

101. **Æthoprora metopoclampa**, (Cocco), Goode and Bean 86
Drawing by A. H. Baldwin, from a specimen collected by the steamer *Albatross* at Station, 2127, in N. lat. 19° 45′, W. lon. 75° 04′ 00″, at a depth of 1,639 fathoms; and a specimen from Messina, obtained from Prof. H. H. Giglioli, director of the Royal Zoölogical Museum, Florence, Italy.

102. **Æthoprora lucida**, Goode and Bean 87
Drawing by A. H. Baldwin, from No. 44084, U. S. N. M., collected by the steamer *Albatross*, at Station 2127, in N. lat. 19° 45′, W. lon. 75° 04′ 00″, at a depth of 1,639 fathoms.

103. **Æthoprora effulgens**, Goode and Bean 87
Drawing by A. H. Baldwin, from No. 43770, U. S. N. M., collected by Capt. Cuddy and crew of the schooner *Joseph O.*, on Brown's Bank.

PLATE XXVIII.

Text page.

104. **Rhinoscopelus Coccoi**, (Cocco), Goode and Bean 90
Drawing by J. C. Van Hook, from No. 43822, U. S. N. M., collected by the steamer *Albatross*, in a towing net, in N. lat. 39°, W. lon. 72°. (About twice natural size.)

105. **Tarletonbeania tenua**, Eigenmann and Eigenmann 89
Drawing by A. H. Baldwin, from No. 41882, U. S. N. M., collected by C. H. Eigenmann, off Point Loma, near San Diego, Cal.

106. **Dasyscopelus asper**, (Richardson), Goode and Bean 92
Copied by A. H. Baldwin, from Richardson, Voyage of the Erebus and Terror, Pl. XXVII, Fig. 105.

107. **Electrona Rissoi**, (Cocco), Goode and Bean 91
Drawing by A. H. Baldwin, from No. 40062, U. S. N. M., from the Central Collection of Italian Vertebrata, Royal Zoölogical Museum, Florence, Italy. (Enlarged about one-half.)

PLATE XXIX.

108, 109. **Neoscopelus macrolepidotus**, Johnson 93
Drawings by M. M. Smith, from a specimen collected by the steamer *Blake*, at Station XLI, off Dominique, in 333 fathoms.

110. **Nannobrachium McDonaldi**, Goode and Bean 94
Drawing by S. F. Denton, from No. 35445, U. S. N. M., collected by the steamer *Albatross*, at Station 2182, in N. lat. 39° 25′ 30″, W. lon. 71° 44″, at a depth of 861 fathoms.

PLATE XXX.

111. **Maurolicus borealis**, (Nilsson), Günther 96
Drawing by A. H. Baldwin, from a specimen collected by the steamer *Albatross*, at Station 2402, in N. lat. 28° 36′, W. lon. 85° 33′, at a depth of 111 fathoms.

112. **Opisthoproctus soleatus**, Vaillant 95
Drawing from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XIV, Fig. 1. (Nearly four times natural size.)

113. **Ichthyococcus ovatus**, (Cocco), Bonaparte 95
Outline from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XIV, Fig. 2.

114. **Cyclothone microdon**, (Günther), Goode and Bean 99
Drawing by H. L. Todd, from No. 29833, U. S. N. M., collected by the steamer *Fish Hawk*, at Station 953, off Marthas Vineyard, in N. lat. 39° 52′ 30″, W. lon. 70° 17′ 30″, at a depth of 724 fathoms. (Nearly twice natural size.)

PLATE XXXI.

115. **Chauliodus Sloanii**, Schneider 96
Drawing by H. L. Todd, from No. 23420, U. S. N. M., collected by Capt. Charles Anderson and crew, of the Gloucester fishing fleet, in N. lat. 42° 08′, W. lon. 65° 35′, at a depth of 185 fathoms. (About one-half natural size.)

116. **Gonostoma denudatum**, Rafinesque 98
Drawing from Bonaparte, Fauna Italica, folio 119, Fig. 1.

117. **Gonostoma brevidens**, Kner and Steindachner 98
Drawing by H. L. Todd, from No. 33368, U. S. N. M., collected by the steamer *Albatross*, at Station 2077, in N. lat. 41° 09′ 40″, W. lon. 66° 02′ 20″, at a depth of 1,255 fathoms. (Slightly reduced.)

118. **Cyclothone bathyphila**, (Vaillant), Goode and Bean 100
Drawing by A. H. Baldwin, from a specimen collected by the steamer *Albatross*, at Station 2534, in N. lat. 40° 01′, W. lon. 67° 29′ 15″, at a depth of 1,234 fathoms.

PLATE XXXII.

119. **Cyclothone elongata**, (Günther), Goode and Bean 101
Drawing by A. H. Baldwin, from No. 33291, U. S. N. M., collected by the steamer *Albatross*, at Station 2039, in N. lat. 38° 19′ 26″, W. lon. 68° 20′ 20″, at a depth of 2,369 fathoms. (Nearly twice natural size.)

120. **Bonapartia pedaliota**, Goode and Bean 102
Drawing by H. L. Todd, from the type specimens, collected by the steamer *Albatross*, at Station 2642, in N. lat. 25° 20′ 30″, W. lon. 79° 58′, at a depth of 217 fathoms. (Enlarged about one-half.)

Text page.

121. **Yarrella Blackfordii**, Goode and Bean 103
Drawing by A. H. Baldwin, from type No. 44242, U. S. N. M., collected by the steamer *Albatross*, at Station 2376, in N. lat. 29° 03′ 15″, W. lon. 88° 16″, at a depth of 324 fathoms. (Slightly reduced.)

122. **Photichthys argenteus**, Hutton 104
Drawing from Günther, Challenger Report, Vol. XXII, Pl. XLV. (About one-half natural size.)

PLATE XXXIII.

123. **Astronesthes niger**, Richardson 105
Drawing by A. H. Baldwin, from No. 34538, U. S. N. M., collected by Capt. Field, on a voyage from Mogador to New York, and presented to the National Museum by Mr. E. G. Blackford.

124. **Antronesthes gemmifer**, Goode and Bean 105
Drawing by A. H. Baldwin, from type No. 24645, U. S. N. M., obtained by the schooner *Polar Wave* from the stomach of a halibut, in N. lat. 44° 25′, W. lon. 53° 12′, at a depth of 300 fathoms.

125. **Astronesthes Richardsonii**, Poey 106
Drawing by M. M. Smith, from No. 35540, U. S. N. M., collected by the steamer *Albatross*, at Station 2202, in N. lat. 39° 38′ 00″, W. lon. 71° 39′ 45″, at a depth of 515 fathoms.

PLATE XXXIV.

126. **Diplophos tænia**, Günther 104
Drawing from Günther, Challenger Report, Vol. XXII, Pl. IV., (Enlarged nearly five times.)

127. **Stomias ferox**, Reinhardt 107
Drawing by H. L. Todd, from No. 23360, U. S. N. M. (Gloucester donation No. 490), collected by Capt. David Cammel and crew, of the Gloucester fishing fleet, at East Banquereux (Three-fifths natural size.)

128. **Stomias boa**, (Risso), Cuvier 108
Drawing from Cuvier and Valenciennes, Histoire Naturelle des Poissons, Vol. XVIII, Pl. 545.

129. **Stomias affinis**, Günther 108
Drawing from Günther, Challenger Report, Vol. XXII, Pl. LIV, Fig. A.

PLATE XXXV.

130. **Echiostoma barbatum**, Lowe 109
Drawing by S. F. Denton, from No. 35624, U. S. N. M., collected by the steamer *Albatross*, at Station 2236, in N. lat. 39° 11′ 00″, W. lon. 72° 08′ 30″, at a depth of 636 fathoms. (Enlarged one-third.)

131. **Echiostoma margarita**, Goode and Bean 109
Drawing by A. H. Baldwin, from type No. 39282, U. S. N. M., collected by the steamer *Albatross*, at Station 2394, in N. lat. 28° 38′ 30″, W. lon. 87° 02′, at a depth of 420 fathoms.

132. **Opostomias micripnus**, Günther 110
Drawing from Günther, Challenger Report, Vol. XXII, Pl. LIII, Fig. A. (About one-half natural size.)

133. **Grammatostomias dentatus**, Goode and Bean 110
Drawing by H. L. Todd, from type No. 37370, U. S. N. M., collected by the steamer *Albatross*, at Station 2565, in N. lat. 38° 19′ 20″, W. lon. 69° 02′ 30″, at a depth of 2,069 fathoms. (Slightly enlarged.)

PLATE XXXVI.

134. **Pachystomias microdon** Günther 111
Outline from Günther, Challenger Report, Vol. XXII, Pl. LIII.

135. **Eustomias obscurus**, Vaillant 111
Outline from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. VIII, Fig. 3.

136. **Bathophilus nigerrimus**, Giglioli 111
Outline from Giglioli, "Pelagos." (Enlarged one-third.)

137. **Photonectes gracilis**, Goode and Bean 112
Drawing by M. M. Smith, from the type specimen collected by the steamer *Blake* at Station XL, off Martinique, in 472 fathoms.

PLATE XXXVII.

138. **Malacosteus niger**, Ayres 114
Drawing by H. L. Todd, from No. 32169 U. S. N. M. (Gloucester Donation, No. 797), collected by Capt. Charles Anderson and crew of the schooner *Alice G. Wonson*, on the northeastern edge of Georges Bank, in 125 fathoms. (Enlarged two-thirds.)

Text page.

139. **Malacosteus choristodactylus**, Vaillant 114
Drawing from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. VIII. (Slightly enlarged.)

140. **Photostomias Guernei**, Collett 115
Outline from Lütken, Spolia Atlantica, p. 281. (Three and a half times natural size.)

141. **Thaumatostomias atrox**, Alcock 115
Drawing from Alcock, Annals and Magazine of Natural History, Vol. VI, Pl. VIII, Fig. 7.

PLATE XXXVIII.

142. **Alepisaurus ferox**, Lowe 117
Drawing by H. L. Todd, from No. 20593 U. S. N. M., obtained in a New York market by E. G. Blackford.

143. **Paralepis borealis**, (Reinhardt), Jordan and Gilbert 119
Drawing by H. L. Todd, from a specimen in the Academy of Natural Sciences, Montreal, Canada.

143A. **Paralepis coregonoides**, Risso 119
Outline from Bonaparte, Fauna Italica, Pl. XXVII.

144. **Sudis hyalina**, Rafinesque 121
Outline from Bonaparte, Fauna Italica, Pl. XXVII.

145. **Odontostomus hyalinus**, Cocco 121
Outline from Günther, Challenger Report, Vol. XXII, Pl. LII, Fig. A.

PLATE XXXIX.

146. **Sternoptyx diaphana**, Lowe 124
Drawing by H. L. Todd, from a specimen obtained by the steamer *Blake* at Station CCCXVI, in N. lat. 32° 07′, W. lon. 78° 37′ 30″, at a depth of 229 fathoms.

146B. **Sternoptyx diaphana**, Lowe 124
Drawing by H. L. Todd, from a specimen collected by the steamer *Blake* at Station CCCXXIII, in N. lat. 33° 19′, W. lon. 76° 12′ 30″, at a depth of 457 fathoms.

147. **Argyropelecus hemigymnus**, Cocco 126
Drawing by A. H. Baldwin, from a specimen collected by the steamer *Albatross* at Station 2117, in N. lat. 15° 24′ 40″, W. lon. 63° 31′ 30″, at a depth of 683 fathoms.

148. 148A. **Argyropelecus Olfersii**, (Cuvier), Cuvier and Valenciennes 126
Drawing by H. L. Todd, from No. 33393 U. S. N. M., collected at Station 2075, in N. lat 41° 40′ 30″, W. lon. 65° 35′ 00″, at a depth of 855 fathoms. (Natural size.)

149. **Polyipnus spinosus**, Günther 128
Drawing by H. L. Todd, from No. 37860 U. S. N. M., collected by the steamer *Albatross* at Station 2393, in N. lat. 28° 43′ 00″, W. lon. 87° 14′ 30″, at a depth of 525 fathoms. (Twice natural size.)

PLATE XL.

150. **Omosudis Lowei**, Günther 122
Outline from Günther, Challenger Report, Vol. XXII, Pl. LII.

151. **Idiacanthus ferox**, Günther 129
Outline from Günther, Challenger Report, Vol. XXII, Pl. LII, Fig. D.

152. **Halosaurus Oweni**, Johnson 130
Drawing by A. H. Baldwin, from No. 34418 U. S. N. M., collected by the steamer *Albatross* at station 2181, in N. lat. 39° 29′, W. lon. 71° 46′, at a depth of 693 fathoms.

153. **Halosaurus Johnsonianus**, Vaillant 131
Drawing from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XV, Fig. 2.

PLATE XLI.

154. **Aldrovandria rostrata**, (Günther), Goode and Bean 132
Drawing from Günther, Challenger Report, Vol. XXII, Pl. LIX.

155. 155A. **Aldrovandia macrochira**, (Günther), Goode and Bean 133
Drawings by H. L. Todd, from a specimen collected by the steamer *Blake* at Station LIII, off Havana, in 242 fathoms.

156. **Aldrovandia phalacrus**, (Vaillant), Goode and Bean 134
Drawing from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XVI.

PLATE XLII.

Text page.

157. **Aldrovandia gracilis**, Goode and Bean 134
Drawing by S. F. Denton, from a specimen collected by the steamer *Blake* at Station LXX, off Guadalupe, at a depth of 769 fathoms. (About one-half natural size.)

158. **Aldrovandia pallida**, Goode and Bean 135
Drawing by H. L. Todd, from the type specimen collected by the Steamer *Blake* at Station CLXXIII, in N. lat. 24° 36′, W. lon. 84° 05′, at a depth of 955 fathoms. (About seven-twelfths natural size.)

159. **Congermuræna flava**, Goode and Bean 138
Drawing by H. L. Todd, from a specimen collected by the steamer *Albatross* at Stations 2121 and 2122, between N. lat. 10° 37′ 40″, W. lon 61° 42′ 40″, and N. lat. 10° 37′ 00″, W. lon. 61° 44′ 22″, at a depth of 31 to 34 fathoms. (Five-sevenths natural size.)

160. **Uroconger vicinus**, Vaillant 138
Drawing by H. L. Todd, from a specimen collected by the steamer *Albatross* at Station 2161, in N. lat. 23° 10′ 36″, W. lon. 82° 20′ 28″, at a depth of 146 fathoms. (Slightly reduced.)

PLATE XLIII.

161. **Simenchelys parasiticus**, Gill 139
Drawing by H. L. Todd, from No. 21673, U. S. N. M., collected by Capt. N. McPhee, of the Gloucester fishing fleet, near Sable Island Bank. (Seven-tenths natural size.)

162. **Ilyophis brunneus**, Gilbert 141
Drawing by A. H. Baldwin, from type No. 44403, U. S. N. M., collected by the steamer *Albatross*, off the Galapagos Islands.

163. **Hoplunnis Diomedianus**, Goode and Bean 146
Drawing by J. C. Van Hook, from type No. 44240, U. S. N. M., collected by the steamer *Albatross* at Station 2402, in N. lat. 28° 36′, W. lon. 86° 50′, at a depth of 111 fathoms.

PLATE XLIV.

164. **Synaphobranchus pinnatus**, (Gronovius), Günther. 143
Drawing by H. L. Todd, from No. 21681, U. S. N. M., collected by Capt. Olsen, of the Gloucester fishing fleet, on Le Have Bank. (Three-fifths natural size.)

165. **Histiobranchus infernalis**, Gill 145
Drawing by H. L. Todd, from No. 38205, U. S. N. M., collected by the steamer *Albatross* at Station 2727, in N. lat. 36° 35′, W. lon. 74° 03′ 30″, at a depth of 1239 fathoms.

166. **Pisoodonophis cruentifer**, Goode and Bean 147
Drawing by A. H. Baldwin, from No. 28938, U. S. N. M., collected by the steamer *Fish Hawk* at Station 1035, in N. lat. 39° 57′, W. lon. 69° 28′, at a depth of 120 fathoms. (Slightly reduced.)

167. **Myrus pachyrhynchus**, Vaillant. 148
Drawing from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. v, Fig. 1. (About one-half natural size.)

168. **Venefica procera**, (Goode and Bean), Jordan and Davis 149
Drawing by H. L. Todd, from a specimen collected by the *Blake* at Station CLIII, in N. lat. 16° 43′ 45″, W. lon. 62° 16′ 12″, at a depth of 303 fathoms. (Seven-twelfths natural size.)

169, 169A, B. **Derichthys serpentinus**, Gill 161
Drawings by H. L. Todd, from type No. 33523, U. S. N. M., collected by the steamer *Albatross*, at station 2094, in N. lat. 39° 44′ 30″, W. lon. 71° 04′, at a depth of 1,022 fathoms.

PLATE XLVI.

170. **Nemichthys scolopaceus**, Richardson. 152
Drawing by H. L. Todd, from a specimen collected by William Parsons, on East Georges Bank.

171. **Labichthys carinatus**, Gill and Ryder 153
Drawing by A. H. Baldwin, from type No. 33369, U. S. N. M., collected by the steamer *Albatross*, at station 2076, in N. lat. 41° 13′, W. lon. 65° 33′ 30″, at a depth of 906 fathoms. (Slightly reduced.)

172. **Labichthys elongatus**, Gill and Ryder 153
Drawing by A. H. Baldwin, from type No. 33577, U. S. N. M., collected by the steamer *Albatross*, at station 2100, in N. lat. 39° 22′, W. lon. 68° 34′ 30″, at a depth of 1,628 fathoms.

PLATE XLVII.

Text page.

173. **Labichthys infans**, (Günther), Goode and Bean 153
Drawing by A. H. Baldwin, from type No. 44239, U. S. N. M., collected by the steamer *Albatross*, at station 2859, in N. lat. 55° 20′, W. lon. 136° 20′, at a depth of 1,569 fathoms. (About one-half natural size.)

174. **Labichthys infans** (after Günther) 154
Outline from Günther, Challenger Report, Vol. XXII, Pl. LXIII.

175. **Serrivomer Beanii**, Gill and Ryder 155
Drawing by A. H. Baldwin, from No. 33383, U. S. N. M., collected by the steamer *Albatross*, at station 2075, in N. lat. 41° 40′ 30″, W. lon. 65° 28′ 30″, at a depth of 855 fathoms. (About one and two-thirds natural size.)

PLATE XLVIII.

176. **Cyema atrum**, Günther 154
Drawing from Günther, Challenger Report, Vol. XXII, Pl. LIV, Fig. D. (About natural size.)

177. **Eurypharynx pelecanoides**, Vaillant 159
Drawing from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XVII. (About one-half natural size.)

178. **Saccopharynx flagellum**, Mitchill 157
Drawing from Günther, Challenger Report, Vol. XXII, Pl. LXVI. (Enlarged about one-half.)

PLATE XLIX.

179, 180. **Saccopharynx flagellum**, Mitchill 157
Drawings by H. L. Todd, from No. 37988, U. S. N. M., collected by the steamer *Albatross*, at station 2717, in N. lat. 38° 24′, W. lon. 71° 13′, at a depth of 1,615 fathoms. (No. 179, one-third natural size; No. 180, one-half.)

181, 182. **Gastrostomus Bairdii**, Gill and Ryder 159
Drawings by H. L. Todd, from No. 33386, U. S. N. M., collected by the steamer *Albatross*, at station 2074, in N. lat. 41° 43′, W. lon. 65° 21′ 50″, at a depth of 1,309 fathoms.

PLATE L.

183. **Notacanthus nasus**, Bloch 164
Drawing from Cuvier and Valenciennes, Histoire Naturelle des Poissons de la France, Pl. 241.

184. **Notacanthus analis**, Gill 165
Drawing by H. L. Todd, from type No. 37856, U. S. N. M., collected by the steamer *Albatross*, at station 2677, in N. lat. 32° 39′, W. lon. 76° 50′ 30″, at a depth of 478 fathoms. (About one-half natural size.)

185. **Notacanthus Bonapartii**, Risso 166
Drawing from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XXVII, Fig. 2. (Reduced about one-third.)

186. **Notacanthus phasganorus**, Goode 167
Drawing by H. L. Todd, from type No. 25972, U. S. N. M., collected by Capt. Briggs Gilpatrick, of the schooner *Gatherer*, from the stomach of a Ground-shark, on the Grand Bank of Newfoundland. (One-fourth natural size.)

PLATE LI.

187. **Gigliolia Moseleyi**, Goode and Bean 169
Drawing from Günther, Challenger Report, Vol. XXII, Pl. LXI, Fig. C. (One-half natural size.)

188. **Polyacanthonotus Rissoanus** (De Filippi and Verany), Günther 170
Drawing from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XXVII.

189. **Macdonaldia rostrata**, (Collett), Goode and Bean 171
Drawing by M. M. Smith, from type No. 35601, U.S. N. M., collected by the steamer *Albatross*, at station 2216, in N. lat. 39° 47′, W. lon. 70° 30′ 30″, at a depth of 963 fathoms.

190. **Lipogenys Gillii**, Goode and Bean 173
Drawing by H. L. Todd, from No. 39212, U. S. N. M., collected by the steamer *Albatross*, at station 2742, in N. lat. 37° 46′ 30″, W. lon 73° 56′ 30″, at a depth of 865 fathoms. (About one-half natural size.)

PLATE LII.

Text page.

191A, B. **Notacanthus analis**, Gill 165
Drawings by A. H. Baldwin, from No. 37856, U. S. N. M., collected by the steamer *Albatross*, at station 2677, in N. lat. 32° 39′, W. lon. 76° 50′ 30″, at a depth of 478 fathoms.

192A, B. **Notacanthus sexspinis**, Richardson 163
Drawings from Günther, Challenger Report, Vol. XXII, Pl. LXI, Fig. a.

193. **Gigliolia Moseleyi**, Goode and Bean 169
Drawing from Günther, Challenger Report, Vol. XXII, Pl. LXI, Fig. C.

194A, B. **Polyacanthonotus Rissoanus**, (De Filippi and Verany), Günther 170
Drawings from Günther, Challenger Report, Vol. XXII, Pl. LXI.

195A, B. **Macdonaldia rostrata**, (Collett), Goode and Bean 171
Drawings by A. H. Baldwin, from Nos. 35601–2, U. S. N. M., collected by the steamer *Albatross*, at station 2216, in N. lat. 39° 47′, W. lon. 70° 30′ 30″, at a depth of 963 fathoms.

196A, B. **Lipogenys Gilli**, Goode and Bean 173
Drawings by A. H. Baldwin, from No. 39212, U. S. N. M., collected by the steamer *Albatross*, at station 2742, in N. lat. 37° 46′ 30″, W. lon. 73° 56′ 30″, at a depth of 865 fathoms.

PLATE LIII.

197. **Beryx splendens**, Lowe 176
Drawing by M. M. Smith, from a specimen collected by the steamer *Albatross*, at station 2415, in N. lat. 30° 44′, W. lon. 79° 26′, at a depth of 440 fathoms.

198. **Melamphaes typhlops**, (Lowe), Günther 177
Drawing from Günther, Challenger Report, Vol. XXII, Pl. V, Fig. A.

199. **Scopelogadus cocles**, Vaillant 182
Drawing from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XXVI. (Slightly reduced.)

200. **Poromitra capito**, Goode and Bean 183
Drawing by H. L. Todd, from a specimen collected by the steamer *Blake*, at station CCCXXVIII, in N. lat. 34° 28′ 45″, W. lon. 75° 22′ 50″, at a depth of 1,632 fathoms. (Two and two-sevenths natural size.)

200A. **Plectromus crassiceps**, (Günther), Goode and Bean 180
Drawing from Günther, Challenger Report, Vol. XXII, Pl. VIII, Fig. B.

PLATE LIV.

201. **Plectromus suborbitalis**, Gill 179
Drawing by H. L. Todd, from type No. 33271, U. S. N. M., collected by the steamer *Albatross*, at station 2036, in N. lat. 38° 52′ 40″, W. lon. 69° 24′ 40″, at a depth of 1,735 fathoms. (One and three-fifths natural size.)

202. **Plectromus Beanii**, (Günther), Goode and Bean 179
Drawing by S. F. Denton, from No. 33378, U. S. N. M., collected by the steamer *Albatross*, at station 2075, in N. lat. 41° 40′ 30″, W. lon. 65° 35′, at a depth of 855 fathoms.

203. **Anoplogaster cornutus**, (Cuvier and Valenciennes), Günther 184
Drawing by H. L. Todd, from No. 33559, U. S. N. M., collected by the steamer *Albatross*, at station 2101, in N. lat. 39° 18′ 30″, W. lon. 68° 24′, at a depth of 1,686 fathoms.

PLATE LV.

204, 204A. **Caulolepis longidens**, Gill 185
Drawings by H. L. Todd, from No. 33270, U. S. N. M., collected by the steamer *Albatross* at station 2034, in N. lat. 39° 27′ 10″, W. lon. 69° 56′ 20″, at a depth of 1,346 fathoms.

205. **Stephanoberyx Monæ**, Gill 186
Drawing by H. L. Todd, from No. 33445 U. S. N. M., collected by the steamer *Albatross* at station 2077, in N. lat. 40° 09′ 40″, W. lon. 66° 02′ 20″, at a depth of 1,255 fathoms. (About three times natural size.)

PLATE LVI.

206. **Stephanoberyx Gilli**, Goode and Bean 187
Drawing by H. L. Todd, from type No. 33555, U. S. N. M., collected by the steamer *Albatross* at station 2099, in N. lat. 37° 12′ 20″, W. lon. 69° 39′ 00″, at a depth of 2,940 fathoms

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207. **Trachichthys Darwinnii**, Johnson 188
Drawing from Steindachner and Doederlein, Denkschrift d. k. Akademie d. Wissenschaften Vol. XLVII, Pl. II.

208. **Hoplostethus mediterraneus**, Cuvier and Valenciennes 189
Drawing by A. H. Baldwin, from No. 43624, U. S. N. M., collected by the steamer *Albatross* at station 2659, in N. lat. 28° 32′, W. lon. 78° 42′, at a depth of 509 fathoms.

PLATE LVII.

209. **Thyrsitops violaceus**, Bean 195
Drawing by S. F. Denton, from type No. 39287, U. S. N. M., collected by Capt. Thomas Thompson, of the Gloucester fishing fleet, on Le Have Bank, at a depth of 125 fathoms. (One-seventh natural size.)

210. **Ruvettus pretiosus**, Cocco 196
Drawing by J. C. Van Hook, from a specimen collected by Capt. Thompson of the schooner *M. A. Baston* on Georges Bank.

211. **Epinnula magistralis**, Poey 198
Drawing by H. L. Todd, from No. 37238, U. S. N. M., collected by the steamer *Albatross* in the Carribbean Sea. (About one-third natural size.)

212. **Dicrotus parvipinnis**, Goode and Bean 201
Drawing by H. L. Todd, from the type specimen, collected by the steamer *Albatross* at station 2601, off Cape Hatteras, in N. lat. 34° 39′ 15″, W. lon. 75° 33′ 30″, at a depth of 107 fathoms.

PLATE LVIII.

213. **Lepidopus caudatus**, (Euphrasen), White 203
Drawing by A. H. Baldwin, from No. 10115, U. S. N. M., collected by John Xantus, off Cape St. Lucas.

214. **Evoxymetopon tæniatus**, Poey 204
Drawing by H. L. Todd, from No. 5735, U. S. N. M., collected by Prof. Félipe Poey at Havana, Cuba. (About two-ninths natural size.)

215. **Benthodesmus atlanticus**, Goode and Bean 205
Drawing by H. L. Todd, from type No. 29116, U. S. N. M., taken from the stomach of a halibut, by Capt. R. Morrison, of the schooner *Laura Nelson*, on the west edge of the Grand Bank of Newfoundland, in 80 fathoms. (About one-third natural size.)

PLATE LIX.

216. **Aphanopus carbo**, Lowe 207
Outline from Günther, Challenger Report, Vol. XXII, Pl. VII, Fig. A.

217. **Trichiurus lepturus**, Linnæus 208
Drawing by H. L. Todd, from No. 18028, U. S. N. M., collected by Dr. Janeway, U. S. Navy, at St. Augustine, Fla.

218. **Pteraclis carolinus**, Cuvier and Valenciennes 212
Drawing by H. L. Todd, from No. 37861, U. S. N. M., collected by the steamer *Albatross* at station 2660, in N. lat. 28° 40′ 00″, W. lon. 78° 46′ 00″, at a depth of 504 fathoms. (Enlarged one-half.)

PLATE LX.

219. **Coryphæna hippurus**, Linnæus (old male) 209
Drawing by H. L. Todd, from No. 16482, U. S. N. M., obtained in Fulton Market, New York City, by E. G. Blackford.

220. **Coryphæna hippurus**, Linnæus (young) 209
Drawing by H. L. Todd, from No. 16484, U. S. N. M., obtained in the Fulton Market, New York City, by E. G. Blackford.

220.A, B. **Coryphæna hippurus**, Linnæus 209
Sketches from Lütken, Spolia Atlantica, I, p. 486.

PLATE LXI.

221. **Grammicolepis brachiusculus**, Poey 218
Copied from a drawing by Shufeldt, Journal of Morphology, Vol. II. (One-third natural size.)

Text page.

222. **Centrolophus pompilus**, (Gmelin), Cuvier and Valenciennes 214
Drawing by S. F. Denton, from a specimen obtained at Dennis, Mass., by Vinal N. Edwards. (About two-thirds natural size.)

223. **Schedophilus medusophagus**, Cocco 214
Drawing from Günther, Transactions of the Zoölogical Society of London, Vol. XI. Pl. LXVII.

PLATE LXII.

224. **Icosteus enigmaticus**, Lockington 215
Drawing by Günther, Challenger Report, Vol. XXII, Pl. XLIV. (Slightly reduced.)

225. **Acrotus Willoughbyi**, Bean 217
Drawing by S. F. Denton, from No. 39340, U. S. N. M., collected off the coast of Washington, by Charles Willoughby. (About one-ninth natural size.)

226. **Icichthys Lockingtonii**, Jordan and Gilbert 216
Drawing by A. H. Baldwin, from No. 27397, U. S. N. M., collected off the coast of Washington. (Slightly reduced.)

PLATE LXIII.

227. **Nomeus Gronovii**, (Gmelin), Günther 220
Drawing by H. L. Todd, from a specimen collected by the steamer *Albatross* at station 2647, in N. lat. 25° 48′ 00″, W. lon. 80° 04′ 00″, at a depth of 85 fathoms. (Enlarged one-third.)

228. **Psenes pellucidus**, Lütken 221
Drawing by M. M. Smith, from No. 35415, U. S. N. M., collected by the steamer *Albatross* at station 2171, in N. lat. 37° 59′ 30″, W. lon. 73° 48′ 40″, at a depth of 444 fathoms.

229. **Psenes maculatus**, Lütken 221
Drawing by H. L. Todd, from No. 39329, U. S. N. M., collected by the steamer *Albatross* at station 2628, in N. lat. 32° 24′, W. lon. 76° 55′ 30″, at a depth of 528 fathoms. (Nearly twice natural size.)

PLATE LXIV.

230. **Luvarus imperialis**, Rafinesque 222
Outline from Day, Fishes of Great Britain and Ireland, Pl. XLIII.

231. **Glossamia pandionis**, Goode and Bean 231
Drawn by H. L. Todd, from type No. 26628, U. S. N. M., collected by the steamer *Fish Hawk* at station 897, in N. lat. 37° 25′, W. lon. 74° 18′, at a depth of 157½ fathoms. (Enlarged about one-fourth.)

232. **Verilus sordidus**, Poey 240
Drawing by A. H. Baldwin, from No. 12565, U. S. N. M., collected by Prof. Félipe Poey, off Cuba. (Slightly less than one-half natural size.)

PLATE LXV.

233, 233A, B. **Cyttus hololepis**, Goode and Bean 225
Drawings by H. L. Todd, from type No. 39296, U. S. N. M., collected by the steamer *Albatross* at station 2358, in N. lat. 20° 19′, W. lon. 87° 03′ 30″, at a depth of 220 fathoms. (Enlarged nearly one-half.)

234. **Diretmus argenteus**, Johnson 211
Drawing from Johnson, Proceedings of the Zoölogical Society of London, Pl. XXXVI.

235. **Antigonia capros**, Lowe 229
Drawings from Temminck and Schlegel, Fauna Japonica, Pl. XLII.

PLATE LXVI.

236. **Epigonus occidentalis**, Goode and Bean 233
Drawing by H. L. Todd, from the type specimen, collected by the steamer *Blake* at station LIV, off Barbadoes, in 237 fathoms. (Natural size.)

237. **Hypoclydonia bella**, Goode and Bean 236
Drawing by S. F. Denton, from No. 39338, U. S. N. M., collected by the steamer *Albatross* at station 2426, in N. lat. 36° 01′ 30″, W. lon. 74° 47′ 30″, at a depth of 93 fathoms. (About one and two-thirds natural size.)

238. **Polyprion americanum**, (Schneider), Jordan 238
Drawing by H. L. Todd, from a specimen collected by the U. S. Fish Commission, on the Grand Bank.

Text page

239, 240. **Pseudopriacanthus altus**, Gill 242
Drawings by H. L. Todd, from a specimen collected by the steamer *Albatross* at station 2606, in N. lat. 34° 35′ 15″, W. lon, 75° 52′ 00″, at a depth of 25 fathoms. (No. 239, eight times natural size; No. 240, four times.)

PLATE LXVII.

241. **Polymixia nobilis**, Lowe 243
Drawing from Günther, Challenger Report, Vol. XXII, Pl. I, Fig. B.

242. **Scorpæna cristulata**, Goode and Bean 246
Drawing by H. L. Todd, from type No. 39326, U. S. N. M., collected by the steamer *Albatross* at station 2415, in N. lat. 30° 44′, W, lon. 79° 26, at a depth of 440 fathoms.

243. **Scorpæna Agassizii**, Goode and Bean 247
Drawing by M. M. Smith, from the type specimen collected by the steamer *Blake* at station CCLIX, in N. lat. 23° 13′, W. lon. 74° 52′, at a depth of 80 fathoms.

PLATE LXVIII.

244. **Helicolenus maderensis**, Goode and Bean 250
Drawing by H. L. Todd, from No. 26627, U. S. N. M., collected by the steamer *Fish Hawk* at station 897, in N. lat. 37° 25′, W. lon. 74° 18′, at a depth of 157½ fathoms. (Slightly reduced.)

245. **Pontinus Rathbuni**, Goode and Bean 255
Drawing by A. H. Baldwin, from No. 39526, U. S. N. M., collected by the steamer *Albatross* at station 2298, in N. lat. 35° 39′, W. lon. 74° 52′, at a depth of 80 fathoms.

246. **Pontinus longispinis**, Goode and Bean 258
Drawing by H. L. Todd, from type No. 39322, U. S. N. M., collected by the steamer *Albatross* at station 2402, in N. lat. 28° 36′, W. lon. 85° 33′ 30″, at a depth of 111 fathoms.

PLATE LXIX.

247. **Pontinus macrolepis**, Goode and Bean 257
Drawing by A. H. Baldwin, from a specimen collected by the steamer *Blake* at station CIV, off Barbadoes, at a depth of 500 fathoms.

248. **Sebastes marinus**, (Linnæus), White 260
Drawing by H. L. Todd, from No. 10442, U. S. N. M., collected at Eastport, Me.

PLATE LXX.

249. **Setarches parmatus**, Goode 264
Drawing by H. L. Todd, from type No. 26084, U. S. N. M., collected by the steamer *Fish Hawk* at station 876, off Martha's Vineyard, in N. lat. 39° 57′ 00″, W. lon. 70° 56′ 00″, at a depth of 120 fathoms. (Twice natural size.)

250. **Eumicrotremus spinosus**, (Müller), Gill 272
Drawing by H. L. Todd, from a specimen collected off Half Way Rock, Salem, Mass., at a depth of 35 fathoms. (About three times natural size.)

251, 251A, B. **Careproctus ranula**, Goode and Bean 275
Drawings by H. L. Todd, from No. 22310, U. S. N. M., collected by the steamer *Speedwell* at station 117, off the mouth of Halifax Harbor. (Little less than twice natural size.)

252. **Monomitra liparina**, Goode 278
Drawn by H. L. Todd, from type No. 26184, U. S. N. M., collected by the steamer *Fish Hawk* at station 891, in N. lat. 39° 46′, W. lon. 71° 10′, at a depth of 480 fathoms.

PLATE LXXI.

253. **Paraliparis Copei**, Goode and Bean. 279
drawing by H. L. Todd, from No. 35637, U. S. N. M., collected by the steamer *Albatross* at station 2232, in N. lat. 39° 12′ 17″, W. lon. 72° 09′ 30″, at a depth of 520 fathoms. (Slightly reduced.)

254. **Gymnolycodes Edwardsi**, Vaillant 281
Drawing from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XXVI.

255. **Artediellus uncinatus**, (Reinhardt), Jordan 267
Drawing by A. H. Baldwin, from a specimen collected by the steamer *Albatross* at station 2477, in N. lat. 44° 29′ 30″, W. lon. 57° 11′ 15″, at a depth of 114 fathoms. (About two-and-a-half times natural size.)

Text page.

256. **Triglops Pingelii**, Reinhardt 269
Drawing by H. L. Todd, from a specimen collected by the steamer *Speedwell* at station 117, 8 miles off Chebucto, at a depth of 52 fathoms. (Enlarged about one-half.)

PLATE LXXII.

257. **Cottunculus microps**, Collett 269
Drawing by H. L. Todd, from No. 26087, U. S. N. M., collected by the steamer *Fish Hawk* at station 880, in N. lat. 38° 48′ 30″, W. lon. 70° 54′, at a depth of 252½ fathoms. (Natural size.)

258. **Cottunculus Thomsonii**, Günther 270
Drawing by H. L. Todd, from No. 37386, U. S. N. M., collected by the steamer *Albatross* at station 2584, in N. lat. 39° 05′ 30″, W. lon. 72° 23′ 20″, at a depth of 541 fathoms. (Seven-twelfths natural size.)

259. **Podothecus decagonus**, (Schneider), Jordan 282
Drawing from Collett, Norsk. Nordhavs Expedition, Pl. II, Fig. 11.

260. **Aspidophoroides monopterygius**, (Bloch), Goode and Bean 283
Drawing by H. L. Todd, from No. 21761, U. S. N. M., collected by the steamer *Speedwell* at Sandwich Point, Halifax, in 18 fathoms. (Enlarged about one-half.)

PLATE LXXIII.

261A. B. **Cottunculus microps**, Collett 269
Drawing by H. L. Todd, from No. 26087, U. S. N. M., collected by the steamer *Fish Hawk* at station 880, in N. lat. 38° 48′ 30″, W. lon. 70° 54′, at a depth of 252½ fathoms. (Natural size.)

262A, B. **Cottunculus Thomsonii**, Günther 270
Drawings by H. L. Todd, from No. 37386, U. S. N. M., collected by the steamer *Albatross* at station 2584, in N. lat. 39° 05′ 30″, W. lon. 72° 23′ 20″, at a depth of 541 fathoms. (Natural size.)

PLATE LXXIV.

263, 263A, B. **Hypsicometes gobioides**, Goode 290
Drawings by A. H. Baldwin, from a specimen collected by the steamer *Albatross* at station 2377, in N. lat. 29° 07′ 30″, W. lon. 88° 08′, at a depth of 210 fathoms.

264, 264A. **Chiasmodon niger**, Johnson 292
Drawings by H. L. Todd, from No. 25633, U. S. N. M., collected at the surface by Capt. Thomas F. Hodgdon of the schooner *Bessie W. Somes*, on Le Have Bank.

PLATE LXXV.

265. **Lopholatilus chamæleonticeps**, Goode and Bean 284
Drawing by H. L. Todd, from No. 22899, U. S. N. M., collected by Capt. Kirby, 80 miles south by east of No Man's Land.

PLATE LXXVI.

266. **Pseudoscopelus scriptus**, Lütken 292
Drawing from Lütken, Spolia Atlantica, Pl. I, Fig. 3. (About three times natural size.)

267. **Porichthys porosissimus**, (Cuvier and Valenciennes), Günther 294
Outline by A. H. Baldwin, from a specimen collected by the steamer *Albatross* at station 2121, in N. lat. 10° 37′ 40″, W. lon. 61° 42′ 40″ at a depth of 31 fathoms.

268, 268A, B. **Callionymus himantophorus**, Goode and Bean 296
Drawings by H. L. Todd, from a specimen collected by the steamer *Blake* at station XXX, off Barbados, in 209 fathoms. (Natural size.)

PLATE LXXVII.

269. **Anarrhichas lupus**, Linnæus 299
Drawing by H. L. Todd, from No. 21846, U. S. N. M., collected by Capt. John Gourville, of the Gloucester fishing fleet, on Georges Bank.

270. **Anarrhichas minor**, Olafsen 301
Drawing by H. L. Todd, from No. 21618, U. S. N. M., collected by Capt. R. H. Hurlbert, in N. lat. 42° 27′, W. lon. 64° 20′.

Text page.

271. **Anarrhichas latifrons**, Steenstrup and Hallgrimsson 301
Drawing by H. L. Todd, from No. 21373, U. S. N. M., collected by Capt. Joseph W. Collins, of the schooner *Marion*, in N. lat. 43° 56′, W. lon. 59° 04′. (About one-fourth natural size.)

PLATE LXXVIII.

272. **Lycodes Esmarkii**, Collett 303
Drawing by H. L. Todd, from No. 21991, U. S. N. M., collected by Capt. Z. Hawkins and crew, of the schooner *Gwendolen*, on Le Have Bank, in 400 fathoms. (About two-sevenths natural size.)

273. **Lycodes reticulatus**, Reinhardt 305
Drawing by H. L. Todd, collected by Capt. R. Markuson and crew, of the Gloucester fishing fleet, southwest of Banquereux, in 300 fathoms.

274. **Lycodes frigidus**, Collett 305
Drawing by H. L. Todd, from No. 32995, U. S. N. M., collected by the steamer *Albatross* at station 2018, in N. lat. 37° 12′ 22″, W. lon. 74° 20′ 04″, at a depth of 788 fathoms. (About two-fifths natural size.)

275. **Lycodes mucosus**, Richardson 306
Drawing by H. L. Todd, from No. 16930, U. S. N. M., collected in Cumberland Gulf, by W. A. Mintzer. (About two-fifths natural size.)

PLATE LXXIX.

276. **Lycodes zoarchus**, Goode and Bean 308
Drawing by S. F. Denton, from type No. 39298, U. S. N. M., collected by steamer *Albatross*, off Nova Scotia in N. lat. 44° 46′ 30″, W. lon. 59° 55′ 45″, at a depth of 130 fathoms.

276A. **Lycodes zoarchus**, Goode and Bean 308
Drawing by S. F. Denton, from No. 39299, U. S. N. M., collected by the steamer *Albatross* at station 2486, in N. lat. 44° 26′, W. lon. 57° 11′ 15″, at a depth of 190 fathoms.

277, 277A. **Lycenchelys Verrillii**, Goode and Bean 309
Drawings by H. L. Todd, from No. 21015, U. S. N. M., collected by the U. S. Fish Commission, 27 miles southwest of Chebucto.

PLATE LXXX.

278. **Lycodes perspicillum**, Kröyer 307
Drawing by H. L. Todd, from No. 39336, U. S. N. M., collected by steamer *Albatross* at station 2456, in N. lat. 47° 29′, W. lon. 52° 18′, at a depth of 86 fathoms. (Twice natural size.)

278A. **Lycodes perspicillum**, Kröyer 307
Drawing by S. F. Denton, from No. 39337, U. S. N. M., collected by the steamer *Albatross* at station 2491, in N. lat. 45° 25′ 30″, W. lon. 58° 35′ 15″, at a depth of 59 fathoms. (Nearly four times natural size.)

279. **Lycenchelys paxillus**, Goode and Bean 311
Drawing by H. L. Todd, from No. 22177, U. S. N. M., collected by Capt. Joseph Collins, of the Gloucester fishing fleet, in N. lat. 42° 48′, W. lon. 63° 07′. (About one-half natural size.)

279A. **Lycenchelys paxillus**, Goode and Bean 311
Drawing by H. L. Todd, from a specimen collected by the steamer *Blake* at station CCCIX, in N. lat. 40° 11′ 40″, W. lon. 68° 22′, at depth of 304 fathoms.

280. **Lycodonus mirabilis**, Goode and Bean 312
Drawing by S. F. Denton, from No. 39207, U. S. N. M., collected by the steamer *Albatross* at station 2742, in N. lat. 37° 46′ 30″, W. lon. 73° 56′ 30″, at a depth of 865 fathoms.

PLATE LXXXI.

281A, B. **Lycodes reticulatus**, Reinhardt 305
Drawing by H. L. Todd, from a specimen collected by Capt. R. Markuson, southwest of Banquereux, in 300 fathoms. (One-half natural size.)

282. **Lycenchelys paxillus**, Goode and Bean 311
Drawing by H. L. Todd, from No. 22177, U. S. N. M., collected by Capt. Joseph W. Collins of the Gloucester fishing fleet, in N. lat. 42° 48′, W. lon. 63° 07′. (Natural size.)

Text page.

283A, B. **Lycodes mucosus**, Richardson 306
Drawings by H. L. Todd, from No. 16930, U. S. N. M., collected by W. A. Mintzer, in Cumberland Gulf. (Three-fourths natural size.)

283C. **Lycodes zoarchus**, Goode and Bean 308
Drawing by H. L. Todd, from type No. 39298, U. S. N. M., collected by the steamer *Albatross*, off Nova Scotia, in N. lat. 44° 46′ 30′, W. lon. 59° 55′ 45″, at a depth of 130 fathoms.

PLATE LXXXII.

284. **Melanostigma gelatinosum**, Günther 314
Drawing by H. L. Todd, from No. 28853, U. S. N. M., collected by the steamer *Fish Hawk* at station 952, in N. lat. 39° 55′, W. lon. 70° 28′, at a depth of 396 fathoms. (Enlarged one-half.)

285. **Dicromita Agassizii**, Goode and Bean 319
Drawing by H. L. Todd, from a specimen collected by the steamer *Blake* at station XCIII, off Granada, in 291 fathoms.

285A, B. **Dicromita Agassizii**, Goode and Bean 319
Drawings by H. L. Todd, from type No. 26023, U. S. N. M., collected by the steamer *Fish Hawk* at station 869, in N. lat. 40° 02′ 18″, W. lon. 70° 23′ 06″, at a depth of 192 fathoms.

286. **Bassozetus catena**, Goode and Bean 323
Drawing by S. F. Denton, from type No. 37341, U. S. N. M., collected by the steamer *Albatross* at station 2379, in N. lat. 28° 00′ 15″, W. lon. 87° 42′, at a depth of 1,467 fathoms. (About seven-ninths natural size.)

287. **Bassozetus normalis**, Gill 322
Drawing by H. L. Todd, from No. 49416, U. S. N. M., collected by the steamer *Albatross* at station 2380, in N. lat. 28° 02′ 30″, W. lon. 87° 43′ 45″, at a depth of 1,430 fathoms. (About seven-tenths natural size.)

288. **Benthocometes robustus**, Goode and Bean 327
Drawing by H. L. Todd, from No. 29057, U. S. N. M., collected by the steamer *Fish Hawk* at station 1043, in N. lat. 38° 39′, W. lon. 73° 11′, at a depth of 130 fathoms. (One and three-fifths natural size.)

PLATE LXXXIII.

289. **Neobythites Gillii**, Goode and Bean 325
Drawing by A. H. Baldwin, from type No. 37340, U. S. N. M., collected by the steamer *Albatross* at station 2402, in N. lat. 28° 36′, W. lon. 85° 33′, at a depth of 111 fathoms. (About twice natural size.)

290. **Neobythites marginatus**, Goode and Bean 326
Drawing by H. L. Todd, from the the type specimen collected by the steamer *Blake* at station LXXIX, off Barbadoes, in 209 fathoms. (One and three-fifths natural size.)

291. **Bassogigas Gillii**, Goode and Bean 328
Drawing by A. H. Baldwin, from No. 39417, U. S. N. M., collected by the steamer *Albatross* at station 2684, off Cape Henlopen, Delaware, in N. lat. 39° 35′, W. lon. 70° 54′, at a depth of 1,106 fathoms. (Slightly more than one-third natural size.)

292. **Porogadus miles**, Goode and Bean 334
Drawing by A. H. Baldwin, from type No. 35625, U. S. N M., collected by the steamer *Albatross* at station 2230, in N. lat. 38° 27′, W. lon. 73° 02′, at a depth of 1,168 fathoms. (Enlarged about one-half.)

PLATE LXXXIV.

293. **Penopus Macdonaldi**, Goode and Bean 336
Drawing by S. F. Denton, from type No. 39433, U. S. N. M., collected by the steamer *Albatross* at Station 2716, in N. lat. 38° 29′ 30″, W. lon. 70° 57′, at a depth of 1,631 fathoms.

294. **Barathrodemus manatinus**, Goode and Bean 332
Drawing by H. L. Todd, from the type specimen collected by the steamer *Blake* at station CCCXXV, in N. lat. 33° 35′ 20″, W. lon. 76°, at a depth of 647 fathoms. (Slightly enlarged.)

Text page.

295. **Nematonus pectoralis**, (Goode and Bean), Günther 333
Drawing by S. F. Denton, from type No. 37342, U. S. N. M., collected by the steamer *Albatross* at station 2380, in N. lat. 28° 02′ 30″, W. lon. 87° 43′ 45″, at a depth of 1,430 fathoms. (Slightly reduced.)

296A. **Mixonus laticeps**, Günther 339
Drawing from Günther, Challenger Report, Vol. XXII, Pl. XXV, Fig. B. (Five and a half times natural size.)

296B. **Tauredophidium Hextii**, Alcock 336
Outline from Alcock, Ann. & Mag. Nat. Hist., S. 6, Vol. VI, Pl. VIII, Fig. 1. (Nearly twice natural size.)

PLATE LXXXV.

297, 297A, B. **Dicrolene intronigra**, Goode and Bean 338
Drawings by H. L. Todd, from a specimen collected by the steamer *Blake* in the Gulf Stream. (No. 297, three-fourths natural size; Nos. 297A, B, natural size.)

298. **Barathronus bicolor**, Goode and Bean 341
Drawing by M. M. Smith, from the type specimen collected by the steamer *Blake*, at station LXXI, off Guadeloupe, in 769 fathoms.

299. **Aphyonis mollis**, Goode and Bean 342
Drawing by H. L. Todd, from the type specimen, collected by the steamer *Blake* at station CCXXI, in N. lat. 24° 36′, W. lon. 84° 05′, at a depth of 955 fathoms.

PLATE LXXXVI.

300. **Alexeterion parfaiti**, Vaillant 343
Outline from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XXV (enlarged). (Four times natural size.)

301. **Hephthocara simum**, Alcock 344
Outline from Alcock, Annals and Magazine of Natural History, 1892, Pl. XVIII, Fig. 1. (Natural size.)

302. **Lamprogrammus niger**, Alcock 344
Drawing from Alcock, Annals and Magazine of Natural History, 1891, VIII, Fig. 2. (One-half natural size.)

303. **Rhodichthys regina**, Collett 342
Outline from Collett, Norsk. Nordhavs Exped. Fiske, Pl. v.

PLATE LXXXVII.

304. **Ptilichthys Goodei**, Bean 302
Drawing by H. L. Todd, from No. 26619, U. S. N. M., collected by Dall and Bean at the entrance to Port Levasheff, Unalaska, in 10 fathoms. (About twice natural size.)

305. **Otophidium omostigma**, Jordan 345
Drawing by H. L. Todd, from No. 29670, U. S. N. M., taken from the stomach of a red snapper at Pensacola, Fla. (Nearly twice natural size.)

306. **Leptophidium cervinum**, Goode and Bean 346
Drawing by H. L. Todd, from type No. 28764, U. S. N. M., collected by the steamer *Fish Hawk* at station 941, in N. lat. 40° 01′, W. lon. 69° 56′, at a depth of 76 fathoms. (About four-fifths natural size.)

307. **Leptophidium profundorum**, Gill 347
Drawing by A. H. Baldwin, from a specimen collected by the steamer *Albatross* at station 2042, in N. lat. 39° 33′, W. lon. 68° 26′ 45″, at a depth of 1,555 fathoms. (Slightly enlarged.)

308. **Leptophidium marmoratum**, Goode and Bean 348
Drawing by M. M. Hildebrant, from type No. 37237, U. S. N. M., collected by the steamer *Albatross*, at station 2350, in N. lat. 23° 10′ 39″, W. lon. 82° 20′ 21″, at a depth of 213 fathoms. (Slightly reduced.)

PLATE LXXXVIII.

309. **Phycis regius**, (Walbaum), Jordan and Gilbert 357
Drawing by H. L. Todd, from No. 20923, U. S. N. M., obtained in New York City, by E. G. Blackford. (Two-thirds natural size.)

Text page.

310. **Phycis cirratus**, Goode and Bean 358
Drawing by H. L. Todd, from type No. 39059, U. S. N. M., collected by the steamer *Albatross*, at station 2376, in N. lat. 29° 03′ 15″, W. lon. 88° 16′, at a depth of 324 fathoms.

311. **Phycis chuss**, (Walbaum), Gill 359
Drawing by H. L. Todd, from No. 28707, U. S. N. M., collected by the steamer *Fish Hawk*, at station 918, in N. lat. 40° 20′ 24″, W. lon. 70° 41′ 30″, at a depth of 245 fathoms.

PLATE LXXXIX.

312. **Phycis tenuis**, (Mitchill), De Kay 359
Drawing by H. L. Todd, from No. 21029, U. S. N. M., collected by the steamer *Speedwell*, at stations 73 and 74, in Halifax Harbor.

313. **Phycis Chesteri**, Goode and Bean 360
Drawing by H. L. Todd, from No. 21840, U. S. N. M., collected by the steamer *Speedwell*, at station 174, off Cape Ann, in 140 fathoms. (About two-thirds natural size.)

314. **Aprion macrophthalmus**, (Müller), Jordan and Swain 239
Drawing by M. M. Smith, from a specimen collected by the steamer *Blake*, at station CCLXI, in N. lat. 23° 13′, W. lon. 89° 10′, at a depth of 84 fathoms.

PLATE XC.

315. **Læmonema barbatula**, Goode and Bean 362
Drawing by W. S. Haines, from No. 38331, U. S. N. M., collected by the steamer *Albatross*, at station 2397, in N. lat. 28° 42′, W. lon. 86° 36′, at a depth of 280 fathoms.

315A. **Læmonema barbatula**, Goode and Bean 362
Drawing by H. L. Todd, from No. 29046, U. S. N. M., collected by the steamer *Fish Hawk*, at station 1045, in N. lat. 38° 35′, W. lon. 73° 13′, at a depth of 312 fathoms.

316. **Læmonema melanurum**, Goode and Bean 363
Drawing by W. S. Haines, from type No. 38270, U. S. N. M., collected by the steamer *Albatross* at station 2415, in N. lat. 30° 44′, W. lon. 79° 26′, at a depth of 440 fathoms.

317. **Molva vulgaris**, Fleming 364
Outline from Day, Fishes of Great Britain and Ireland, Pl. LXXXVI.

PLATE XCI.

318. **Physiculus Kaupi**, Poey 366
Outline from Günther, Challenger Report, Vol. XXII, Pl. XVII.

319. **Physiculus fulvus**, Bean 366
Drawing by H. L. Todd, from type No. 28766, U. S. N. M., collected by the steamer *Fish Hawk*, at station 941, in N. lat. 40° 01′, W. lon. 69° 56′, at a depth of 59 fathoms.

320. **Uraleptus Maraldi** (Risso), Costa 367
Drawing by H. L. Todd, from a specimen collected by the steamer *Blake*, at station LXXXI, off Neris. (Nearly twice natural size.)

PLATE XCII.

321. **Lotella maxillaris**, Bean 368
Drawing by H. L. Todd, from type No. 29832, U. S. N. M., collected by the steamer *Fish Hawk*, at station 952, in N. lat. 39° 55′, W. lon. 70° 28′, at a depth of 396 fathoms. (Nearly three times natural size.)

322. **Mora mediterranea**, Risso 369
Outline from Bonaparte, Fauna Italica, Vol. III, Pl. 107.

323. **Lepidion Rissoi**, Swainson 370
Outline from Vinciguerra, Ann. Mus. Civ. Genoa, Vol. XVIII, Pl. III.

PLATE XCIII.

324. **Antimora viola** (Goode and Bean), Jordan 372
Drawing by H. L. Todd, from type No. 21837, U. S. N. M., collected by Capt. Joseph W. Collins, of the schooner *Marion*, on the edge of Le Have Bank. (Three-eighths natural size.)

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Text page.

325. **Halargyreus brevipes**, Vaillant 375
Drawing from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XXV. (About one-third natural size.)

326. **Strinsia tinca**, Rafinesque 380
Outline from Bonaparte, Fauna Italica, Vol. III, Pl. 107.

PLATE XCIV.

327. **Onos ensis**, (Reinhardt), Gill 381
Drawing by S. F. Denton, from No. 39321, U. S. N. M., collected by the steamer *Albatross*, at station 2550, in N. lat. 39° 44′ 30″, W. lon. 70° 30′ 45″, at a depth of 1,081 fathoms.

328. **Rhinonemus cimbrius**, (Linnæus), Goode and Bean 384
Drawing by H. L. Todd, from No. 2,721 U. S. N. M., collected in Chaleur Bay, by Edward Brown. (About three times natural size.)

329. **Brosmius brosme**, (Müller), Günther 385
Drawing by H. L. Todd, from No. 29967, U. S. N. M., obtained in a Boston market, by W. A. Wilcox.

PLATE XCV.

330. **Merlucius bilinearis**, (Mitchill), Gill 386
Drawing by H. L. Todd, from No. 21016, U. S. N. M., obtained by the U. S. Fish Commission in a Halifax market.

331. **Bregmaceros atlanticus**, Goode and Bean 388
Drawing by H. L. Todd, from a specimen collected by the steamer *Blake*, at station CXIII, off Neris, in 305 fathoms. (Three and a half times natural size.)

332, 333. **Cœlorhynchus occa**, Goode and Bean 400
Drawing by H. L. Todd, from type No. 37334 U. S. N. M., collected by the steamer *Albatross*, at station 2396, in N. lat. 28° 34′, W. lon. 86° 48′, at a depth of 335 fathoms. (One-half natural size.)

PLATE XCVI.

334. **Macrurus berglax**, Lacépède 391
Drawing by H. L. Todd, from No. 15608, U. S. N. M. (Gloucester donation 490), collected on the eastern part of Banquereux, at a depth of 200 fathoms, by Capt. David Campbell and crew of the schooner *Admiral*. (One-fourth natural size.)

335. **Macrurus Bairdii**, Goode and Bean 393
Drawing by H. L. Todd, from No. 21014, U. S. N. M., taken 40 miles east of Thatcher's Island, at a depth of 160 fathoms. (About two-thirds natural size.)

336. **Cælorhynchus carminatus**, Goode 398
Drawing by H. L. Todd, from No. 26187, U. S. N. M., collected by the steamer *Fish Hawk*, at station 893, off Marthas Vineyard, in 372 fathoms. (Seven-twelfths natural size.)

337. **Cœlorhynchus occa**, Goode and Bean 400
Drawing by H. L. Todd, from type No. 37334, U. S. N. M., collected by the steamer *Albatross*, at station 2396, in N. lat. 28° 34′, W. lon. 86° 48′, at a depth of 335 fathoms. (Seven-twelfths natural size.)

PLATE XCVII.

338. **Cœlorhynchus caribbæus**, Goode and Bean 401
Drawing by H. L. Todd, from type No. 37333, U. S. N. M, collected by the steamer *Albatross*, at station 2377, in the northern part of the Gulf of Mexico, in N. lat. 29° 07′ 30″, W. lon. 88° 08′, at a depth of 210 fathoms. (About two-thirds natural size.)

339. **Coryphænoides carapinus**, Goode and Bean 404
Drawing by H. L. Todd, from a specimen collected by the steamer *Blake*, at station CCXLII, in N. lat. 39° 43′, W. lon. 70° 55′ 25″, at a depth of 1,002 fathoms.

340. **Hymenocephalus Goodei**, (Günther), Bean 407
Drawing by H. L. Todd, from a specimen collected by the steamer *Blake*, at station 56, in N. lat. 23° 09′, W. lon. 82° 21′ 30″, at a depth of 175 fathoms. (Four-fifths natural size.)

341. **Hymenocephalus cavernosus**, Goode and Bean 408
Drawing by S. F. Denton, from type No. 37337, U. S. N. M., collected by the steamer *Albatross*, at station 2398, in N. lat. 28° 45′, W. lon. 86° 26′, at a depth of 227 fathoms. (Slightly enlarged.)

PLATE XCVIII.

Text page.

342. **Lionurus filicauda**, Günther 409
Outline from Günther, Challenger Report, Vol. XXII, Pl. XXXIV.

343. **Trachonurus sulcatus**, Goode and Bean 410
Drawing by A. H. Baldwin, from type No. 37335, U. S. N. M., collected by the steamer *Albatross*, at station 2394, in N. lat. 28° 38′ 30″, W. lon. 87° 02′, at a depth of 420 fathoms. (Slightly enlarged.)

344. **Cetonurus globiceps**, Vaillant 411
Outline from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XX, Fig. 1.

345. **Chalinuras imula**, Goode and Bean 412
Drawing by H. L. Todd, from No. 39152 U. S. N. M., collected by the steamer *Albatross*, at station 2095, in N. lat. 39° 29′, W. lon. 70° 58′ 40″, at a depth of 1,342 fathoms.

PLATE XCIX.

345A. **Chalinura mediterranea**, Giglioli 525
Outline by Prof. H. H. Giglioli, from a specimen in the Central Collection of Italian Vertebrata, Royal Zoölogical Museum, Florence, Italy. (Slightly reduced.)

346. **Nematonurus gigas**, (Vaillant), Goode and Bean 416
Outline from Günther, Challenger Report, Vol. XXII, Pl. LX.

347. **Moseleya longifilis**, (Günther), Goode and Bean 417
Outline from Günther, Challenger Report, Vol. XXII, Pl. XXXV.

PLATE C.

348. **Abyssicola macrochira**, (Günther), Goode and Bean 417
Outline from Günther, Challenger Report, Vol. XXII, Pl. XXIX, Fig. B.

349. **Trachyrhynchus scabrus**, (Rafinesque), Goode and Bean 417
Outline from Günther, Challenger Report, Vol. XXII, Pl. XLI, Fig. C.

349A. **Macrurus longifilis**, Günther 417
Outline from Günther, Challenger Report, Vol. XXII, Pl. XXXV.

PLATE CI.

350. **Macrurus Novæ-zelandiae**, (Hector), Günther 418
Outline from Hector. Transactions of the New Zealand Institute, Vol. III, Pl. XVIII.

351. **Steindachneria argentea**, Goode and Bean 419
Drawing by H. L. Todd, from type No. 37350, U. S. N. M., collected by the steamer *Albatross*, at station 2378, in N. lat. 39° 14′ 30″, W. lon. 88° 09′ 30″, at a depth of 68 fathoms. (About four-fifths natural size.)

352. **Bathygadus favosus**, Goode and Bean 420
Drawing by H. L. Todd, from the type specimen collected by the steamer *Blake*, at station LXXX, off Martinique, in 472 fathoms. (About one-half natural size.)

353, 354. **Cœlorhynchus carminatus**, Goode 398
Drawings by H. L. Todd, from No. 26187, U. S. N. M., collected by the steamer *Fish Hawk*, at station 893, off Marthas Vineyard, in 372 fathoms. (Natural size.)

PLATE CII.

355A, B. **Limanda Beanii**, Goode 428
Drawings by H. L. Todd, from No. 26102, U. S. N. M., collected by the the steamer *Fish Hawk*, at stations 875, 876, off Marthas Vineyard, in 120 to 126 fathoms. (About four-fifths natural size.)

355C, D. **Limanda Beanii**, Goode 428
Drawings by H. L. Todd, from a specimen collected by the steamer *Albatross*, at station 2401, in N. lat. 28° 38′ 30″, W. lon. 85° 52′ 30″, at a depth of 142 fathoms. (Enlarged about one-half.)

356A. **Glyptocephalus cynoglossus**, (Linnæus), Gill 430
Drawing by S. F. Denton, from No. 39487, U. S. N. M., collected by the steamer *Albatross*, at station 2552, in N. lat. 39° 47′ 07″, W. lon. 70° 35′, at a depth of 721 fathoms. (Natural size.)

356B. **Glyptocephalus cynoglossus**, (Linnæus), Gill 430
Drawing by S. F. Denton, from a specimen collected by the steamer *Albatross*, at station 2543, in N. lat. 39° 58′ 15″, W. lon. 70° 42′ 30″, at a depth of 166 fathoms. (Natural size.)

PLATE CIII.

Text page.

357A, B. **Monolene sessilicauda**, Goode 452
Drawings by H. L. Todd, from No. 26120, U. S. N. M., collected by the steamer *Fish Hawk*, off Newport, R. I. (About five-sevenths natural size.)

358. **Monolene atrimana**, Goode and Bean 455
Drawing by H. L. Todd, from the type specimen collected by the steamer *Blake*, at station XVI, off Barbados, in 288 fathoms. (About four-fifths natural size.)

359. **Monolene atrimana**, Goode and Bean 455
Drawing by H. L. Todd, from No. 26005, U. S. N. M., collected by the steamer *Fish Hawk*, at stations 871 and 872, off Marthas Vineyard, in 86 to 115 fathoms. (Natural size.)

PLATE CIV.

360. **Etropus rimosus**, Goode and Bean 450
Drawing by H. L. Todd, from type No. 37332, U. S. N. M., collected by the steamer *Albatross*, at station 2408, in N. lat. 28° 28′, W. lon. 84° 25′, at a depth of 21 fathoms. (Enlarged about one-half.)

361. **Etropus rimosus**, Goode and Bean 450
Drawing by H. L. Todd, from a specimen collected by the steamer *Albatross*, at station 2543, upon the surface, in N. lat. 39° 58′ 15″, W. lon. 70° 42′ 30″, at a depth of 166 fathoms. (Three times natural size.)

362. **Notosema dilecta**, Goode and Bean 437
Drawing by H. L. Todd, from a specimen collected by the steamer *Albatross*, at the surface, at Station 2601, in N. lat. 34° 39′ 15″, W. lon. 75° 33′ 30″, at a depth of 107 fathoms. (Twice natural size.)

PLATE CV.

363. **Hippoglossus vulgaris**, Fleming 434
Drawing by H. L. Todd, from No. 10439, U. S. N. M., collected by the U. F. Fish Commission, at Eastport, Me.

364. **Platysomatichthys hippoglossoides**, (Walbaum), Goode and Bean 435
Drawing by H. L. Todd, from a specimen obtained in Fulton Market, New York City.

PLATE CVI.

365A, B. **Notosema dilecta**, Goode and Bean 437
Drawings by H. L. Todd, from a specimen collected by the steamer *Blake*, at station CCCXIII, off Charleston, S. C., in N. lat. 32° 31′ 50″, W. lon. 78° 45′, at a depth of 75 fathoms. (Slightly reduced.)

366A, B. **Citharichthys arctifrons**, Goode 442
Drawings by H. L. Todd, from a specimen collected by the steamer *Fish Hawk*, off Newport, R. I., in 115 to 155 fathoms. (Slightly enlarged.)

PLATE CVII.

367. **Hippoglossoides platessoides**, (Fabricius), Gill 438
Drawing by H. L. Todd, from No. 21002, U. S. N. M., collected by the U. S. Fish Commission, on Le Have Bank.

368. **Cyclopsetta fimbriata**, Goode and Bean 451
Drawing by H. L. Todd, from type No. 37330, U. S. N. M., collected by the steamer *Albatross*, at Station 2403, in N. lat. 28° 42′ 30″, W. lon. 85° 29′, at a depth of 88 fathoms. (Seven-tenths natural size.)

PLATE CVIII.

369A B. **Citharichthys unicornis**, Goode 444
Drawings by H. L. Todd, from type No. 26003, U. S. N. M., collected by the steamer *Fish Hawk*, at stations 870, 871, off Marthas Vineyard, in 115 to 155 fathoms. (Enlarged about one-half.)

370. **Citharichthys spilopterus**, Günther 447
Drawing by H. L. Todd, from a specimen collected by the steamer *Blake*, at station CCXLIV, in N. lat. 23° 13′, W. lon. 89° 10′, at a depth of 84 fathoms. (Slightly reduced.)

371. **Scianectes macrophthalmus**, Alcock 440
Copied from Alcock, Journal of the Asiatic Society of Bengal, Vol. LVIII, Pt. 2, Pl. XVI, Fig. 4.

PLATE CIX.

Text page.

372. **Trichopsetta ventralis**, (Goode and Bean), Gill 440
Drawing by H. L. Todd, from No. 37372, U. S. N. M., collected by the steamer *Albatross*, at station 2378, in N. lat. 29° 13′ 30″, W. lon. 88° 09, 30″, at depth of 68 fathoms. (Slightly enlarged.)

373. **Citharichthys pætulus**, (Goode and Bean), Jordan and Gilbert 448
Drawing by H. L. Todd, from type No. 30180, U. S. N. M., collected by Silas Stearns, at Pensacola, Fla. (About one-half natural size.)

PLATE CX.

374. **Aphoristia fasciata**, Goode and Bean 458
Drawing by H. L. Todd, from No. 37348, U. S. N. M., collected by the steamer *Albatross*, at Jamaica, West Indies.

375. **Aphoristia nebulosa**, Goode and Bean 458
Drawing by H. L. Todd, from the type specimen, collected by the steamer *Blake*, at station CCCXQI, in N. lat. 32° 07′, W. lon. 78° 37′ 30″, at a depth of 229 fathoms.

376. **Aphoristia marginata**, Goode and Bean 459
Drawing by H. L. Todd, from a specimen collected by the steamer *Albatross*, at station 2376, in N. lat. 29° 03′ 15″, W. lon. 88° 16′, at a depth of 324 fathoms. (Slightly enlarged.)

377. **Aphoristia pigra**, Goode and Bean 460
Drawing by H. L. Todd, from the type specimen, collected by the steamer *Blake*, at station XXIII, off St. Kitt's, West Indies, in 250 fathoms.

378. **Aphoristia diomediana**, Goode and Bean 460
Drawing by H. L. Todd, from the type specimen, collected by the steamer *Albatross*, at station 2414, in N. lat. 25° 04′ 30″, W. lon. 82° 59′ 15″, at a depth of 26 fathoms. (About two-thirds natural size.)

379. **Aphoristia pusilla**, Goode and Bean 461
Drawing by H. L. Todd, from No. 28778, U. S. N. M., collected by the steamer *Fish Hawk*, in N. lat. 40° 01′, W. lon. 69° 56′, off Marthas Vineyard, in 179 fathoms. (About seven-tenths natural size.)

PLATE CXI.

380. **Prionotus militaris**, Goode and Bean 464
Drawing by H. L. Todd, from the type specimen, collected by the steamer *Albatross*, at station 2362, off Cape Catoche, Yucatan, in N. lat. 22° 08′ 30″, W. lon. 86° 53′ 30″, at a depth of 25 fathoms.

381. **Prionotus egretta**, Goode and Bean 465
Drawing by M. M. Smith, from a specimen collected by the steamer *Blake*, at station LXIV, off Barbadoes, in 100 to 200 fathoms.

382. **Prionotus alatus**, Goode and Bean 467
Drawing by H. L. Todd, from a specimen collected by the steamer *Blake*, off Charleston, S. C., in N. lat. 32° 31′ 50″, W. lon. 78° 45′, at a depth of 75 fathoms.

PLATE CXII.

383, 383B. **Prionotus trinitatis**, Goode and Bean 468
Drawings by H. L. Todd, from type No. 39318, U. S. N. M., collected by the steamer *Albatross*, at station 2120, off Trinidad, in N. lat. 11° 07′, W. lon. 62° 14′ 30″, at a depth of 73 fathoms.

384. **Prionotus militaris**, Goode and Bean 464
Drawing by H. L. Todd, from the type specimen, collected by the steamer *Albatross*, at Station 2362, off Cape Catoche, Yucatan, in N. lat. 22, ° 08′ 30″, W. lon. 86° 53′ 30″, at a depth of 25 fathoms.

PLATE CXIII.

385, 385A, B. **Peristedion miniatum**, Goode 470
Drawings by H. L. Todd, from type No. 26023, U. S. N. M., collected by the steamer *Fish Hawk*, at station 869, in N. lat. 40° 02′ 18″, W. lon. 70° 23′ 06″, at a depth of 192 fathoms. (No. 385 reduced about one-half; Nos. 385A, B natural size.)

PLATE CXIV.

Text page.

386. **Peristedion longispatha**, Goode and Bean 472
Drawing by H. L. Todd, from the type specimen, collected by the steamer *Blake*, at station LVIII., off Havana, in 242 fathoms. (About seven-ninths natural size.)

387. **Peristedion gracile**, Goode and Bean 473
Drawing by H. L. Todd, from the type specimen, collected by the steamer *Albatross*, at station 2401, in N. lat. 28° 38′ 30″, W. lon. 85° 52′ 30″, at a depth of 142 fathoms.

388A, B. **Peristedion platycephalum**, Goode and Bean 474
Drawings by H. L. Todd, from the type specimen, collected by the steamer *Blake*, at station LX, off Barbados, in 123 fathoms. (Natural size.)

PLATE CXV.

389. **Lophotes Cepedianus**, Giorna 349
Drawing from Temminck and Schlegel, Fauna Japonica, Pl. LXXI, Fig. 2.

390. **Lophotes Capellei**, Temminck and Schlegel 351
Outline from Temminck and Schlegel, Fauna Japonica, Pl. LXXI.

391. **Trachypterus iris**, (Gmelin), Cuvier and Valenciennes 477
Outline from Cuvier and Valenciennes, Histoire Naturelle des Poissons de la France, Pl. 297.

PLATE CXVI.

392. **Trachypterus arcticus**, (Brünnich), Nilsson 479
Outline from Day, Fishes of Great Britain and Ireland, Vol. I, Pl. LXIII.

393. **Stylephorus chordatus**, Shaw 482
Outline from Blainville, Journal de Physique, Vol. LXXXVII, Pl. I.

394. **Stylephorus chordatus**, Shaw 482
Outline from Shaw, Transactions of the Linnæan Society of London, Vol. I, p. 90.

PLATE CXVII.

395. **Regalecus glesne**, Ascanius 480
Outline from Day, Fishes of Great Britain and Ireland, Pl. 64.

396. **Macrorhamphosus scolopax**, (Linnæus), Goode and Bean 483
Drawing by H. L. Todd, from No. 28755, U. S. N. M., collected by the steamer *Fish Hawk*, at station 940, in N. lat. 39° 54′, W. lon. 69° 51′ 30″, at a depth of 130 fathoms. (Enlarged one-fourth.)

397. **Aulostoma longipes**, Vaillant 484
Outline from Vaillant, Expeditions Scientifiques du Travailleur et du Talisman, Pl. XXVII, Fig. 4. (Eight times natural size.)

398. **Chaunax pictus**, Lowe 487
Drawing by H. L. Todd, from No. 26021, U. S. N. M., collected by the steamer *Fish Hawk*, at station 869, off Martha's Vineyard, in 192 fathoms. (Four times natural size.)

399. **Ceratias Holbölli**, Kröyer 489
Drawing from Gaimard, Voy. Skand., Poissons, Pl. IX.

PLATE CXVIII.

400, 400A, B. **Lophius piscatorius**, Linnæus 485
Drawings by S. F. Denton, from No. 39344, U. S. N. M., collected by the U. S. Fish Commission, 20 miles south of No Man's Land.

PLATE CXIX.

401. **Mancalias Shufeldtii**, Gill 490
Drawing by H. L. Todd, from No. 33552, U. S. N. M., collected by the steamer *Albatross*, at station 2099, in N. lat. 37° 12′ 20″, W. lon. 69° 39′, at a depth of 2,949 fathoms. (About two and a half times natural size.)

402. **Cryptopsaras Couesii**, Gill 491
Drawing by H. L. Todd, from No. 33558, U. S. N. M., collected by the steamer *Albatross*, at station 2101, in N. lat. 38° 13′ 30″, W. lon. 68° 24′, at a depth of 1,686 fathoms. (Three and three-fourths times natural size.)

Text page.

403. **Halieutæa stellata**, Cuvier and Valenciennes 499
Outline from Temminck and Schlegel, Fauna Japonica, Pl. 82.

404. **Paroneirodes glomerosus**, Alcock 493
Drawing from Alcock, Annals and Magazine of Natural History, Vol. II, Pl. IX, Fig. 6. (Very slightly reduced.)

PLATE CXX.

405. **Corynolophus Reinhardtii**, (Lütken), Gill 494
Drawing from Lütken, Vidensk. Selsk. Skr. Naturvid. og Math. Afh., IV, Pl. 334.

406. **Melanocetus Johnsonii**, Günther 494
Drawing by H. L. Todd, from No. 38055, U. S. N. M., collected by the steamer *Albatross*, at station 2149, in N. lat. 13° 01′ 30″, W. lon. 81° 25′, at a depth of 992 fathoms.

407. **Liocetus Murrayi**, Günther 495
Drawing from Günther, Challenger Report, Vol. XXII, Pl. XI.

PLATE CXXI.

408. **Linophryne lucifer**, Collett 496
Drawing from Collett, Proceedings of the Zoölogical Society of London, 1886, Pl. XV.

409. **Caulophryne setosus**, Goode and Bean 496
Drawing by S. F. Denton, from type No. 39265, U. S. N. M., collected by the steamer *Albatross*, in N. lat. 39° 27′, W. lon. 71° 15′, at a depth of 1,276 fathoms. (Nearly three times natural size.)

410. **Halieutæa coccinea**, Alcock 500
Drawing from Alcock, Annals and Magazine of Natural History, Series 6, Vol. VIII, Pl. VIII.

411. **Malthopsis luteus**, Alcock 529
Drawing from Alcock, Annals and Magazine of Natural History, Series 6, Vol. VIII, Pl. VIII.

PLATE CXXII.

412A, B. **Halieutella lappa**, Goode and Bean 500
Drawings by H. L. Todd, from No. 31862, U. S. N. M., collected by the steamer *Fish Hawk*, at station 1151, in N. lat. 39° 58′ 30″, W. lon. 70° 37′, at a depth of 125 fathoms.

413. **Dibranchus atlanticus**, Peters 501
Drawings by H. L. Todd, from No. 26088, U. S. N. M., collected by the steamer *Fish Hawk*, at station 879, off Marthas Vineyard, in 225 fathoms. (No. 413A, natural size; No. 413B, enlarged one-third.)

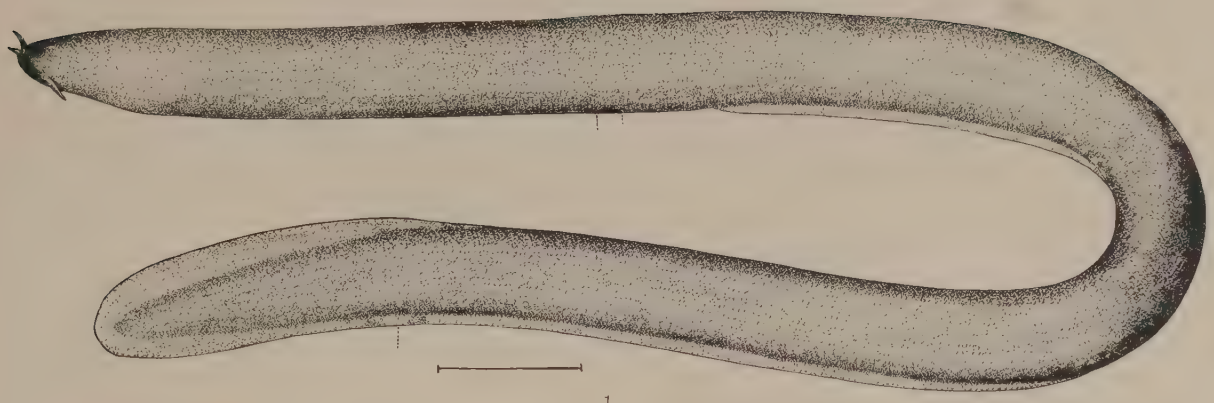
414A, B. **Halieutichthys aculeatus**, (Mitchill), Goode 504
Drawings by H. L. Todd, from No. 23552, U. S. N. M., collected at Key West, Fla., by J. W. Nelie. (Natural size.)

PLATE CXXIII.

415. **Bathyclupea argentea**, Goode and Bean 190
Drawing by A. H. Baldwin, from a specimen collected by the steamer *Blake*, at station XXXVII, off Neris, in 365 fathoms. (About one-half natural size.)

416. **Schedophilopsis spinosus**, Steindachner 216
Drawing by A. H. Baldwin, from a specimen obtained at Astoria, Oregon, by Dr. Aug. C. Kinney. (Four-fifths natural size.)

417. **Tetragonurus Cuvieri**, Risso 230
Drawing by M. M. Hildebrant, from No. 44436, U. S. N. M., collected at Woods Holl, Mass., by Vinal N. Edwards. (About two and a half times natural size.)



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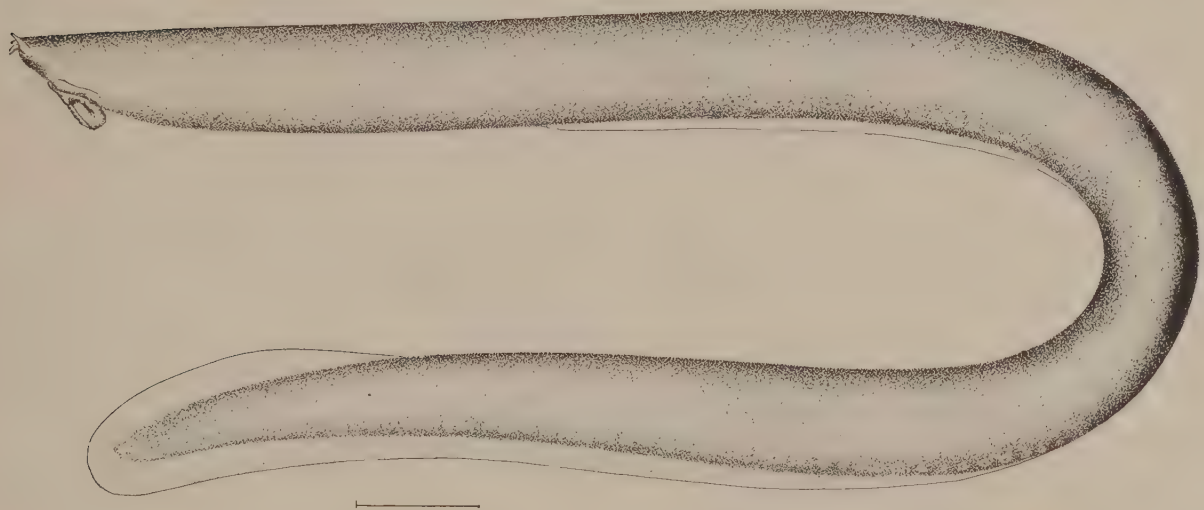

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1. MYXINE GLUTINOSA. (p. 2.) 2. MYXINE AUSTRALIS. (p. 3.) 3. PETROMYZON MARINUS. (p. 4.)

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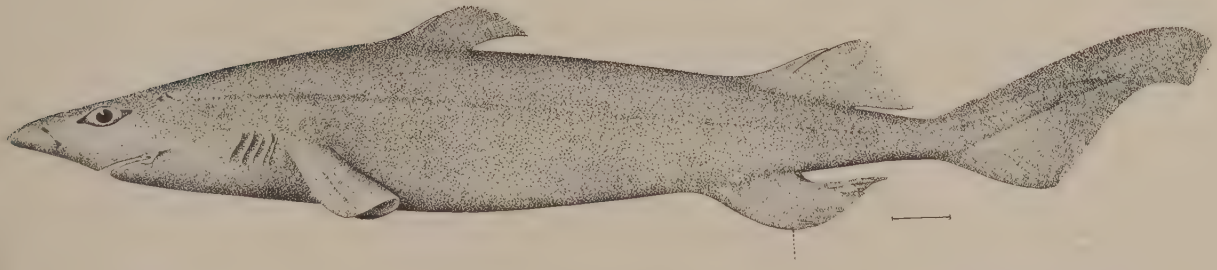

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4. Scymnorhinus licha. (p. 7.)
6. Scylliorhinus retifer. (p. 16.)

5. Etmopterus pusillus. (p. 10.)
7. Centroscyllium Fabricii. (p. 11.)

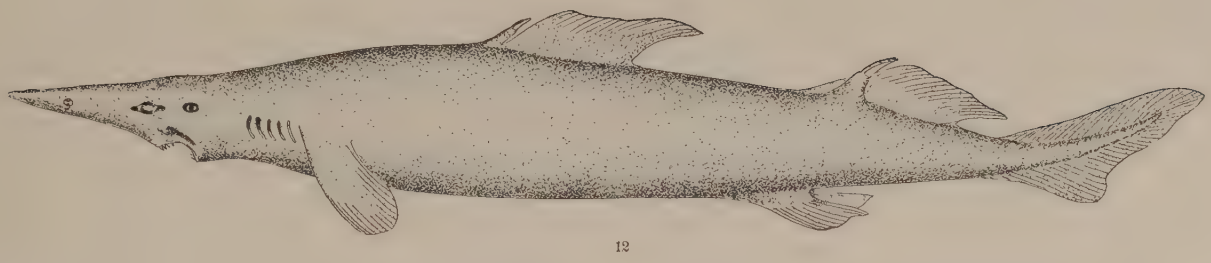
8

9

10

11

8. Somniosus microcephalus. (p. 7.)
9. Echinorhinus spinosus. (p. 8.)
10. Pristiurus melastomus. (p. 20.)
11. Centrophorus granulosus. (p. 12.)



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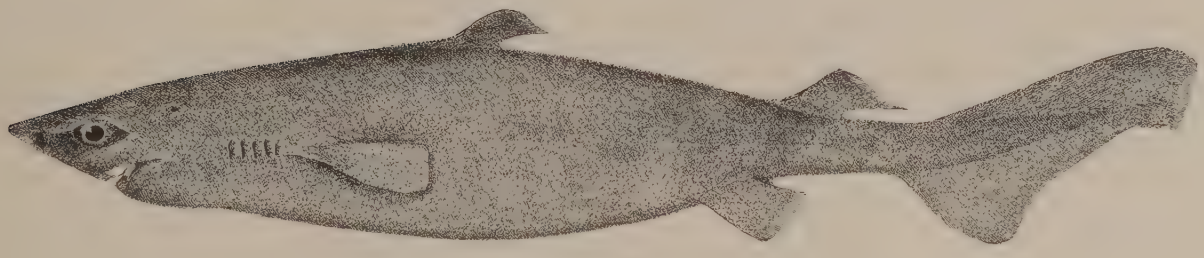

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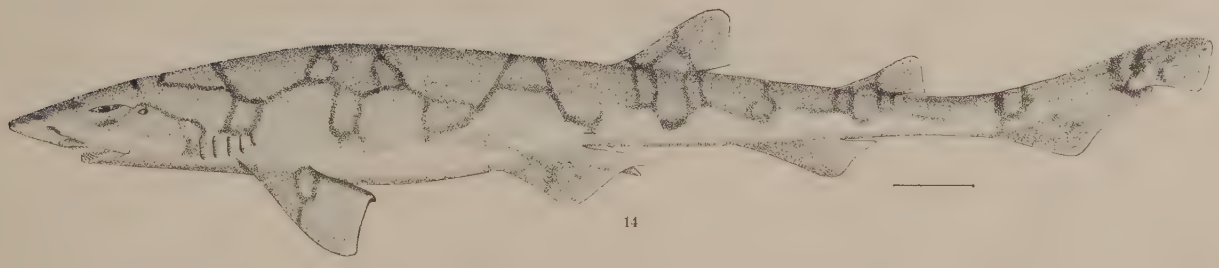

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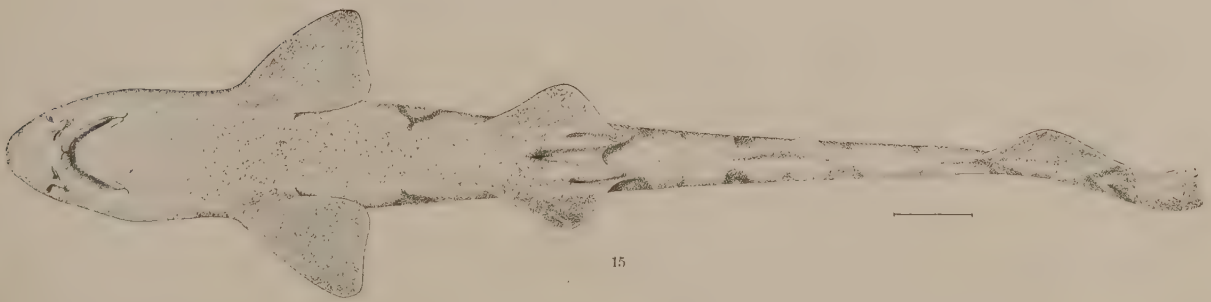

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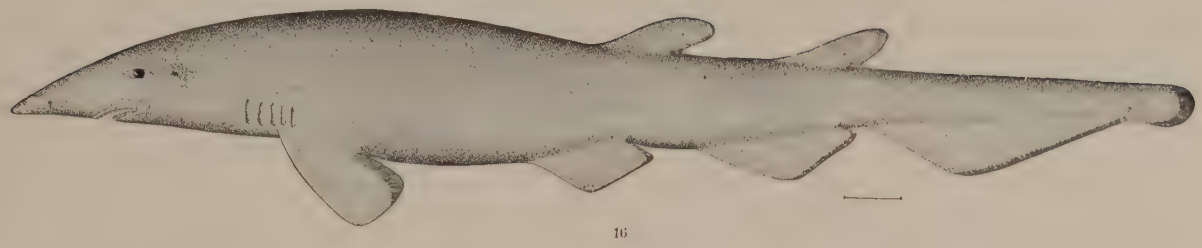
12. Scymnodon ringens. (p. 11.) 13. Centroscymnus coelolepis. (p. 14.) 14, 15. Scylliorhinus retifer. (p. 14.)



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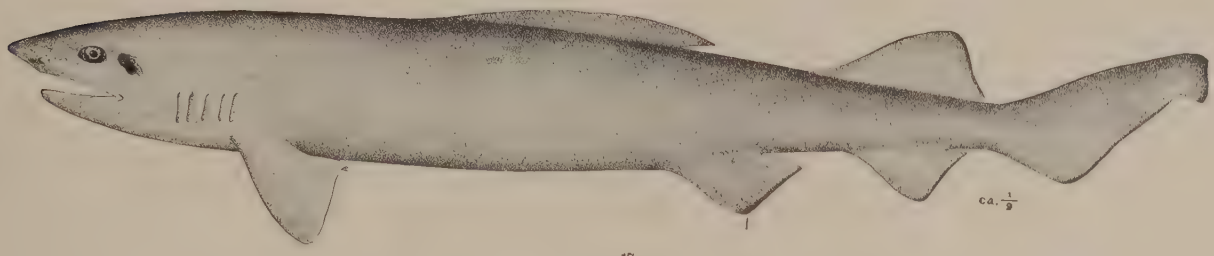

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16. Scylliorhinus profundorum. (p. 17.)
18. Spinax niger. (p. 10.)
17. Pseudotriacis microdon. (p. 18.)
19. Cetorhinus maximus. (p. 21.)

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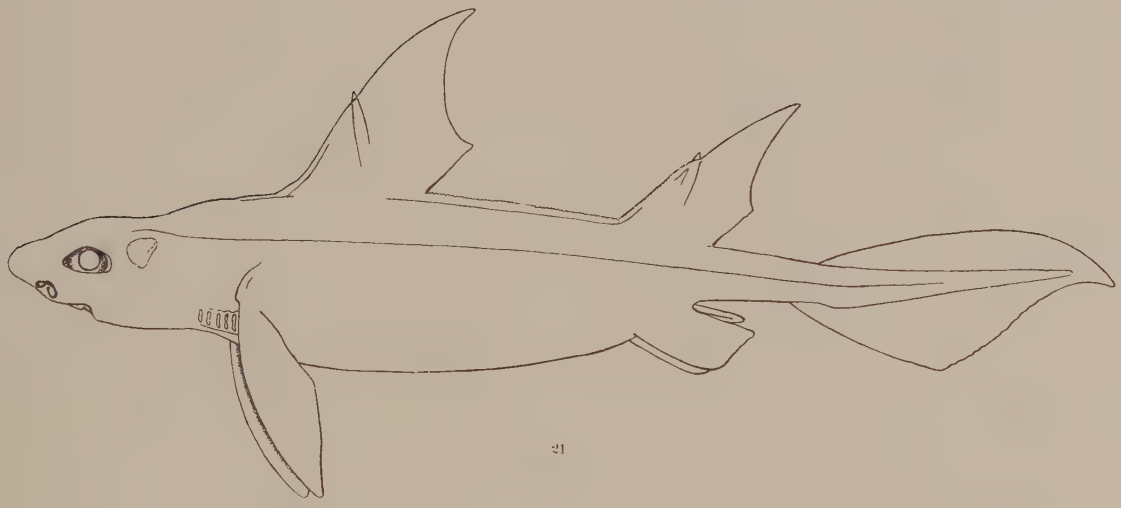

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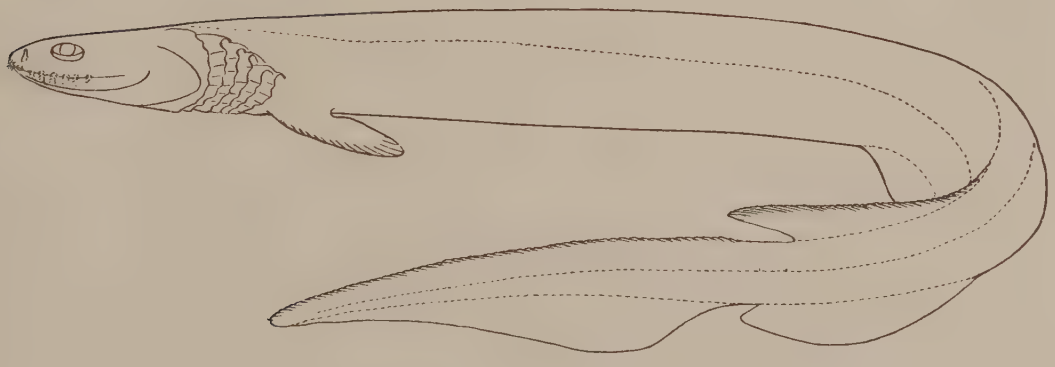

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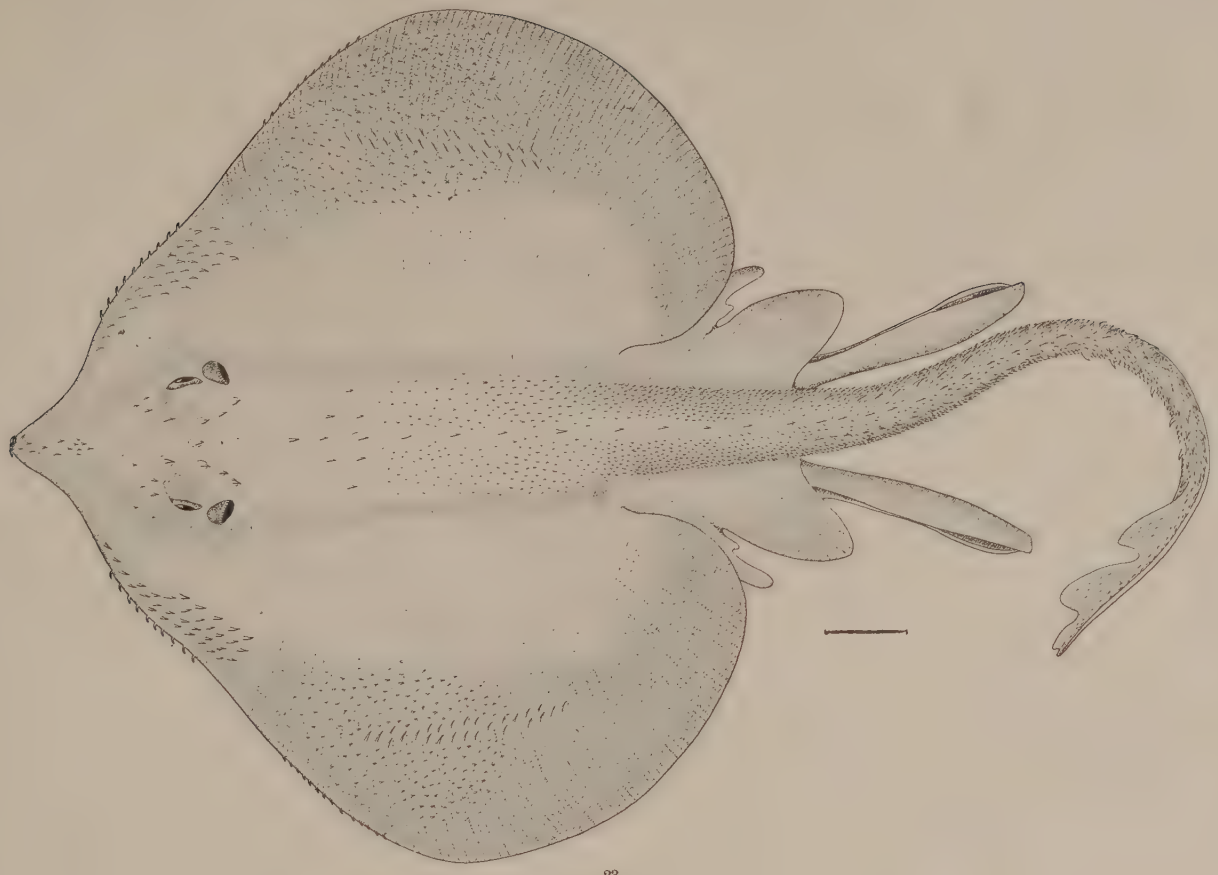
20. Pristiurus atlanticus. (p. 21.) 21. Oxynotus centrina. (p. 15.) 22. Chlamydoselachus anguineus. (p. 22.)



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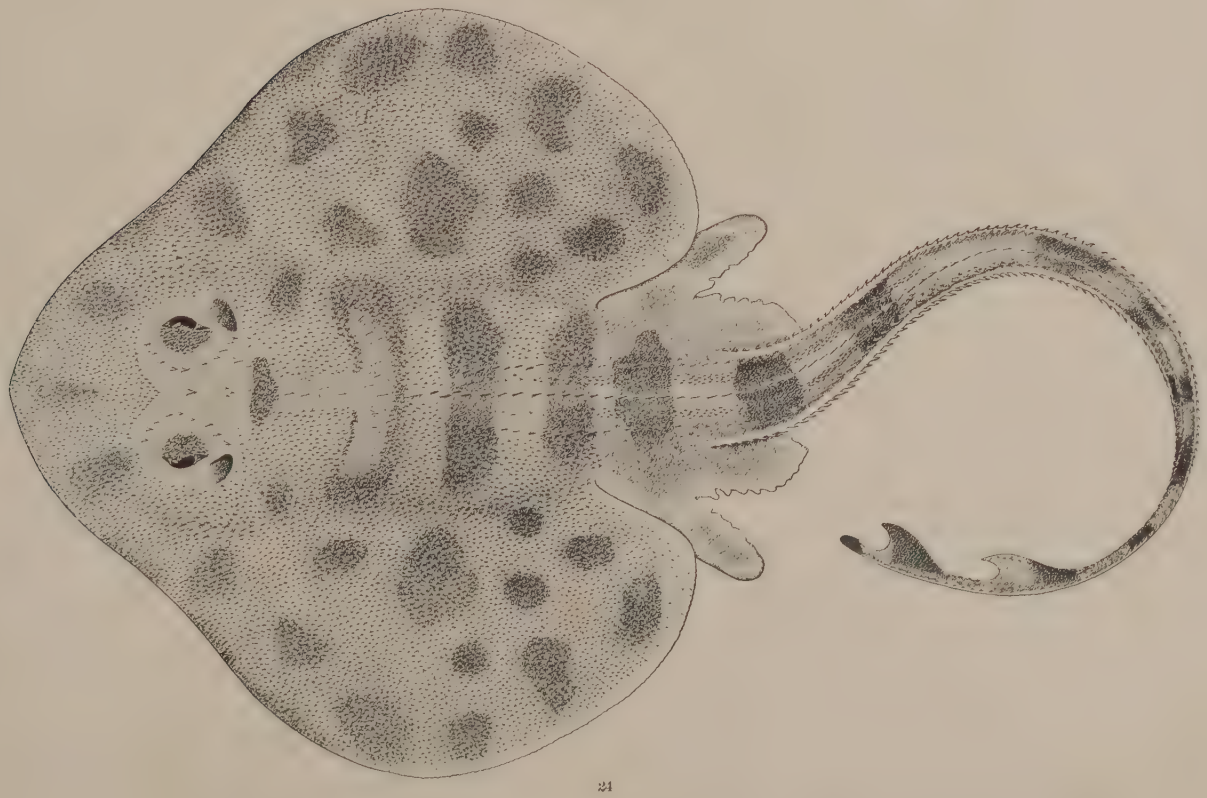

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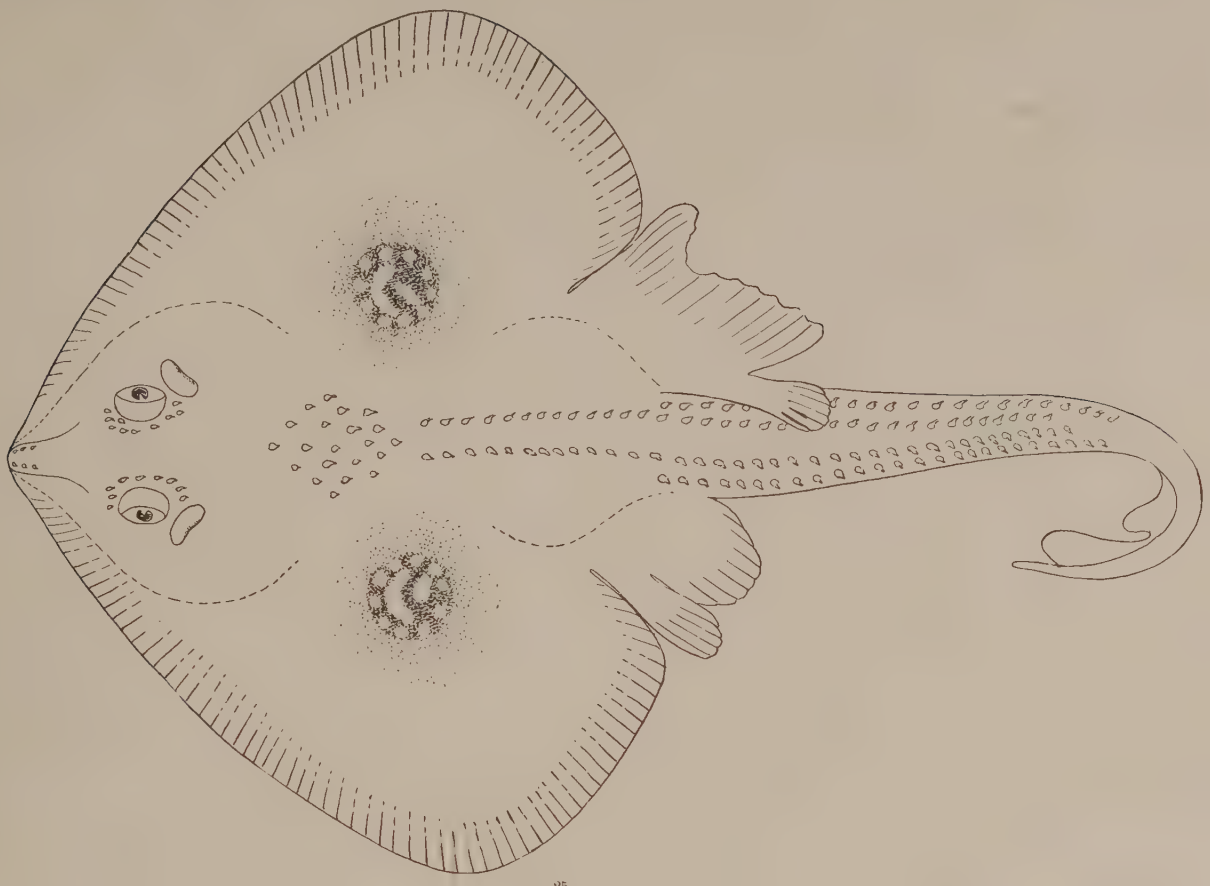
23. Raia Ackleyi. (p. 25.)

24. Raia Ackleyi ornata. (p. 26.)



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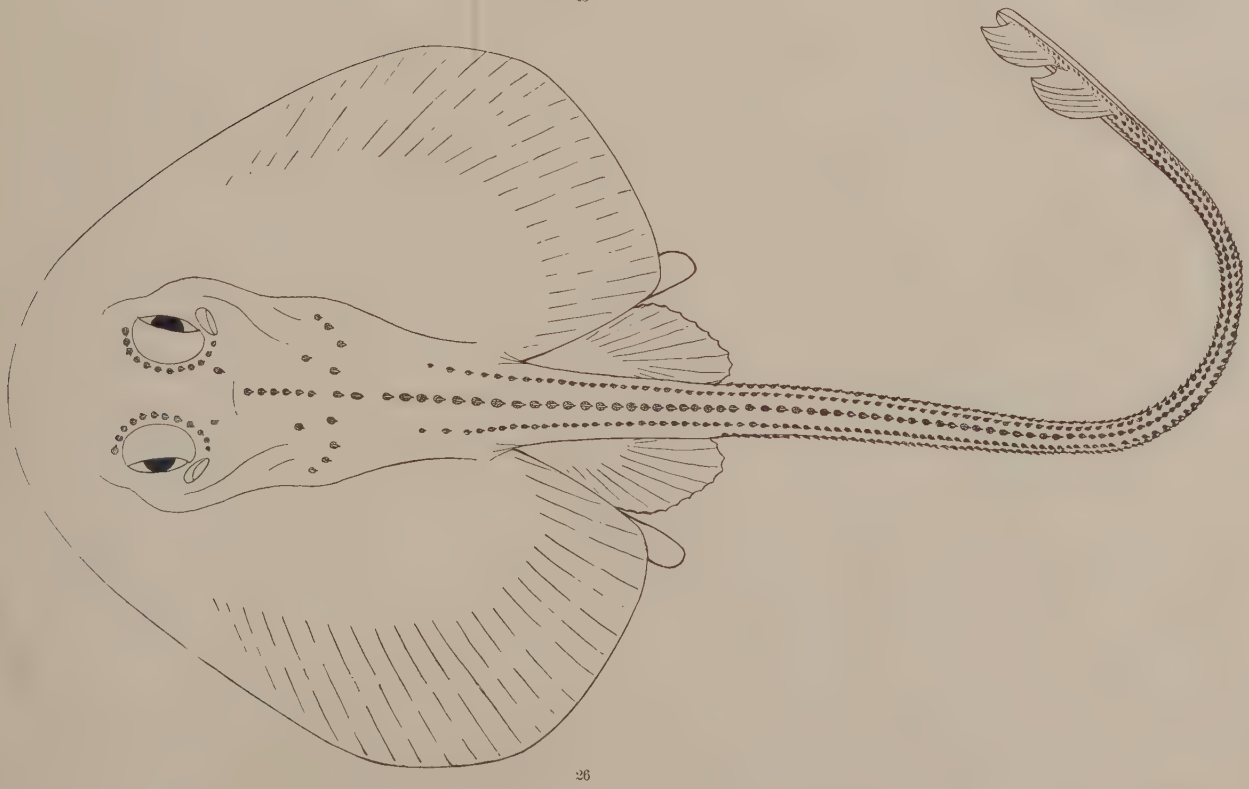

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25. Raia circularis. (p. 27.)

26. Raia plutonia. (p. 27.)

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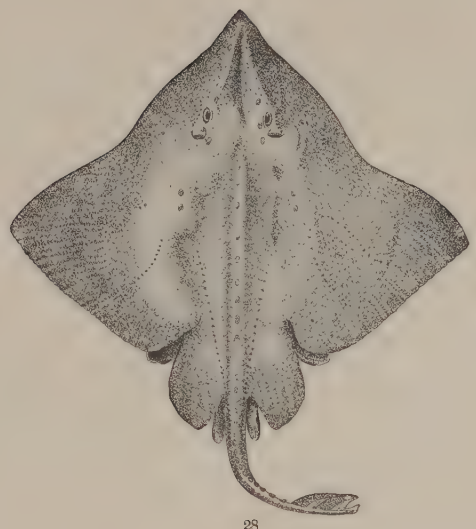

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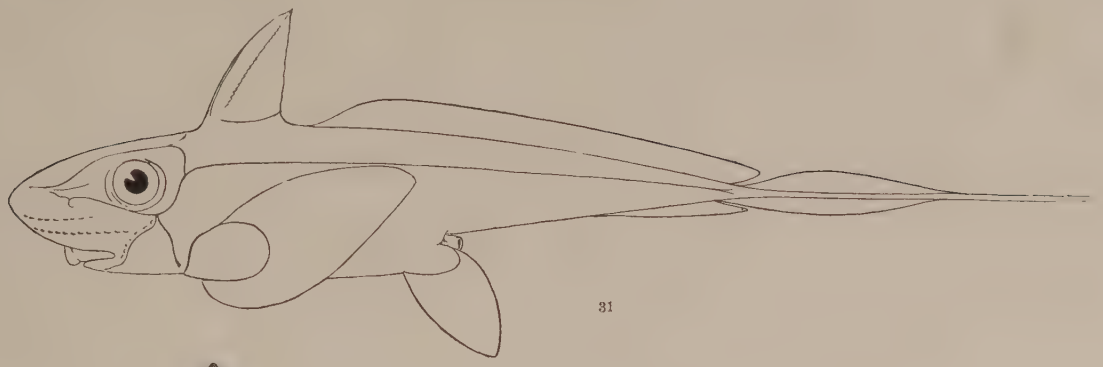
27. RAIA RADIATA. (p. 25.)
29. RAIA LÆVIS. (p. 28.)

28. RAIA HYPEREOREA. (p. 28.)
30. RAIA GRANULATA. (p. 29.)



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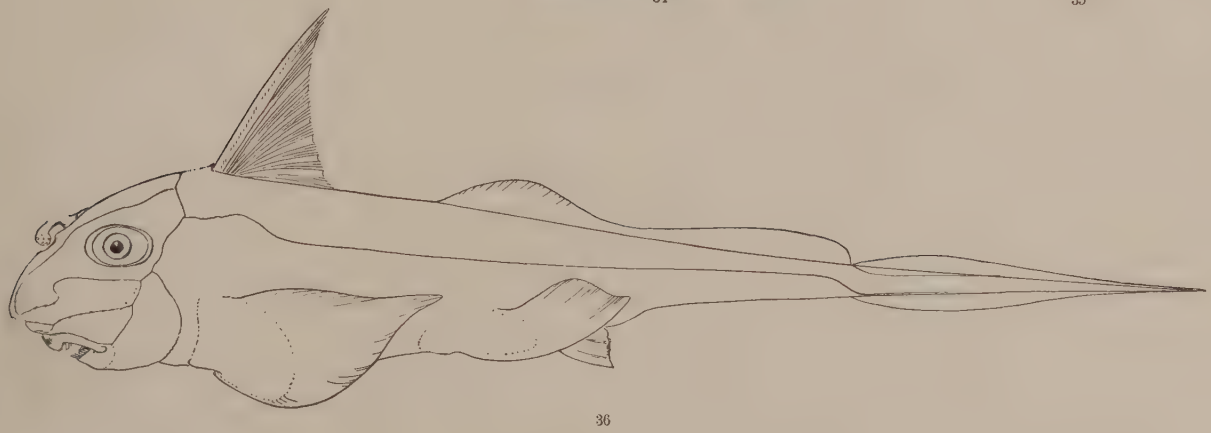

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31. CHIMÆRA MONSTROSA. (p. 31.) 32–35. CHIMÆRA AFFINIS. (p. 31.) 36. CALLORHYNCHUS ANTARCTICUS. (p. 32.)

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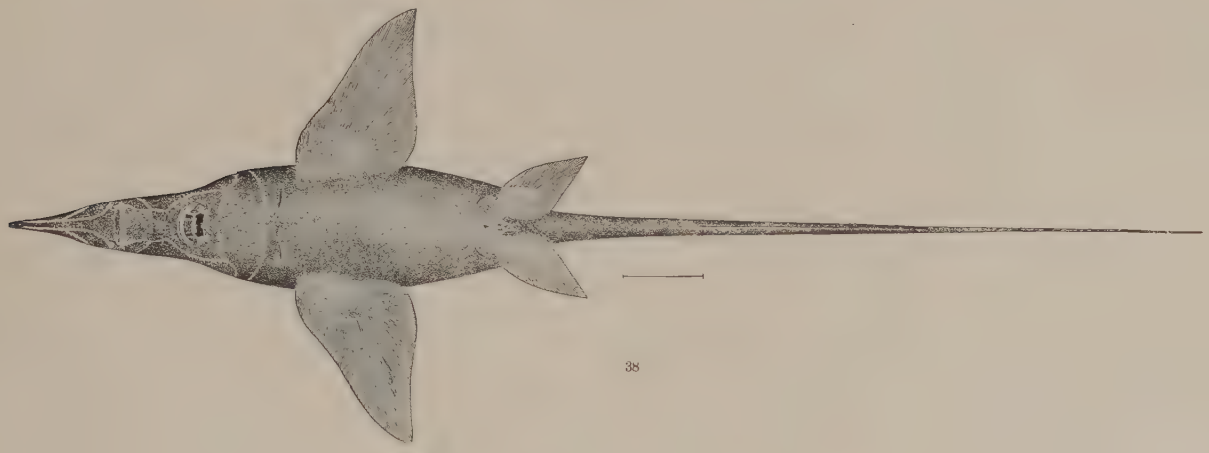

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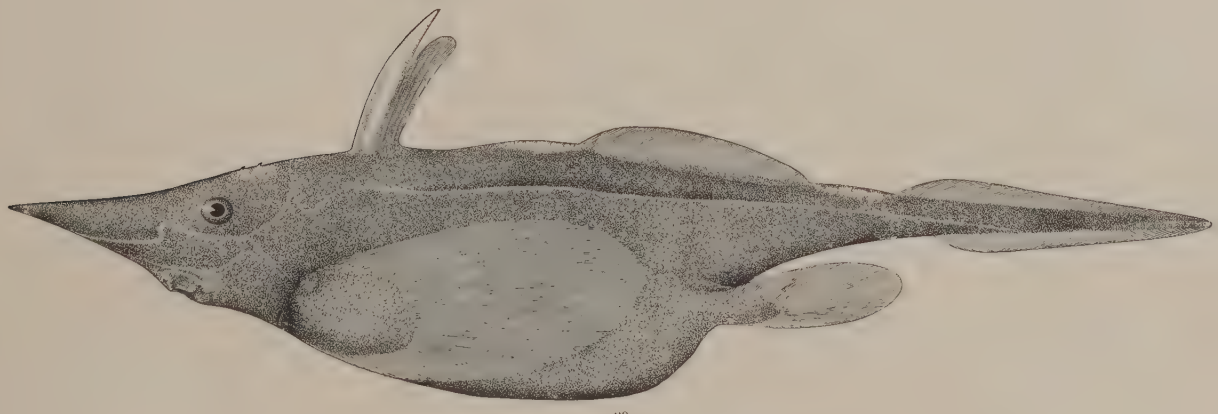

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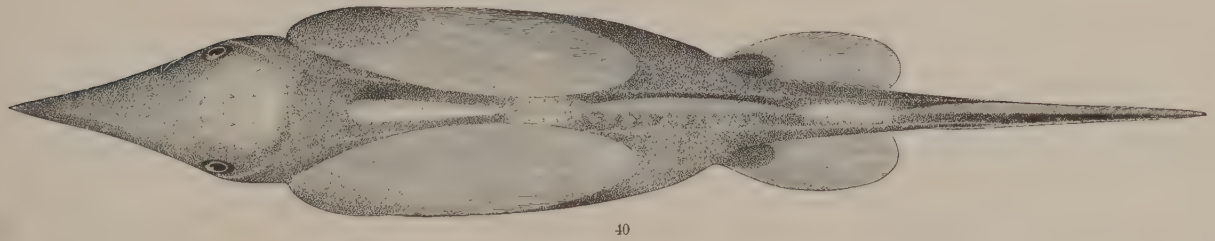
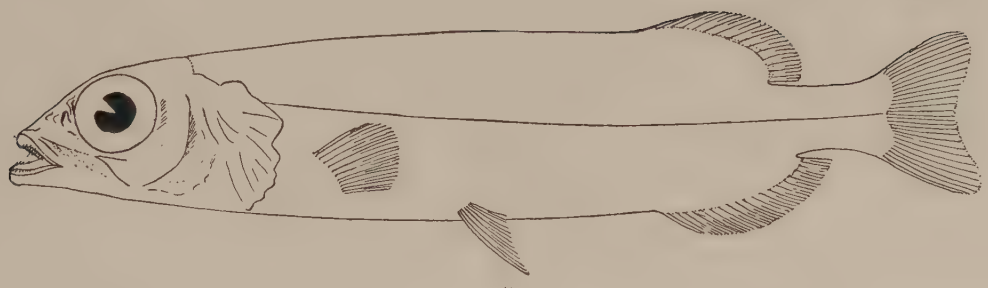


40

37–40. Harriotta Raleighana. (p. 33.)



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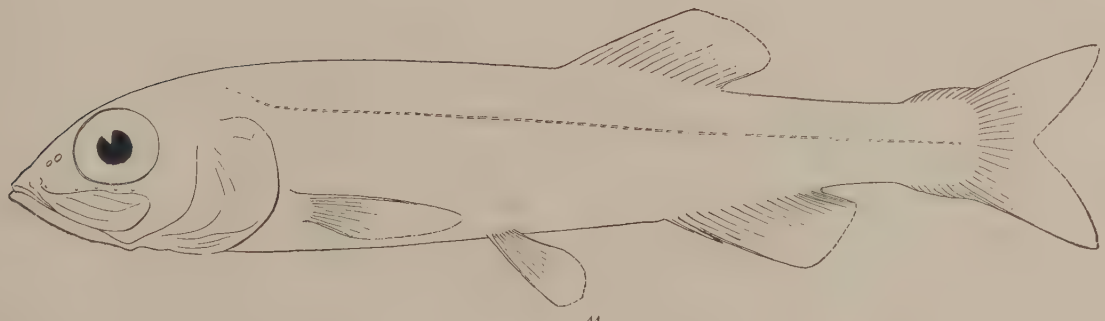
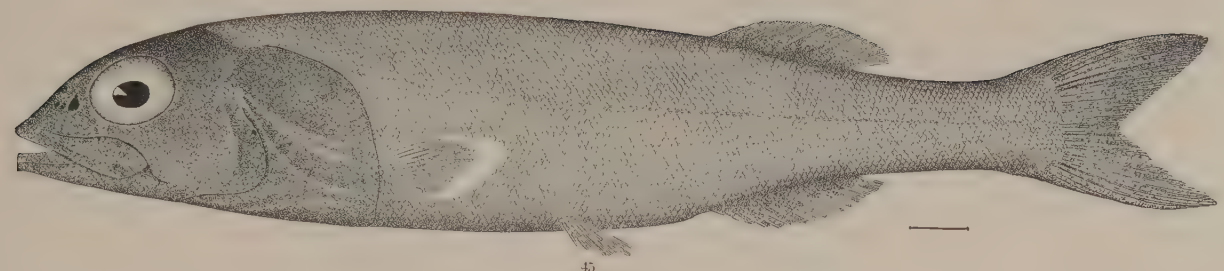


44

41. Alepocephalus rostratus. (p. 36.)
42. Alepocephalus niger. (p. 38.)
43. Conocara macroptera. (p. 39.)
44. Bathytroctes macrolepis. (p. 41.)



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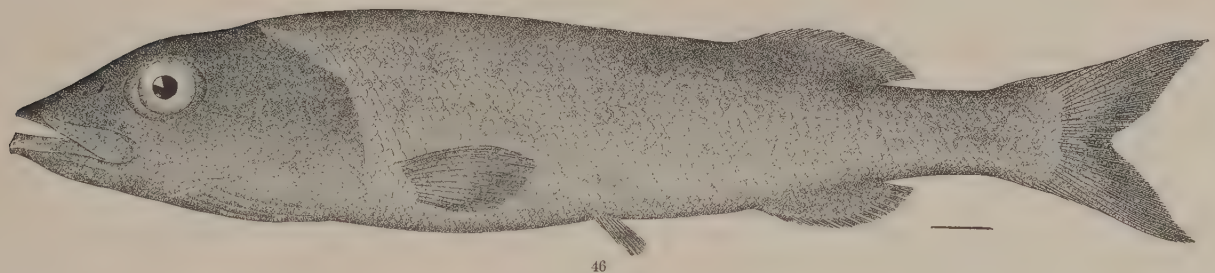

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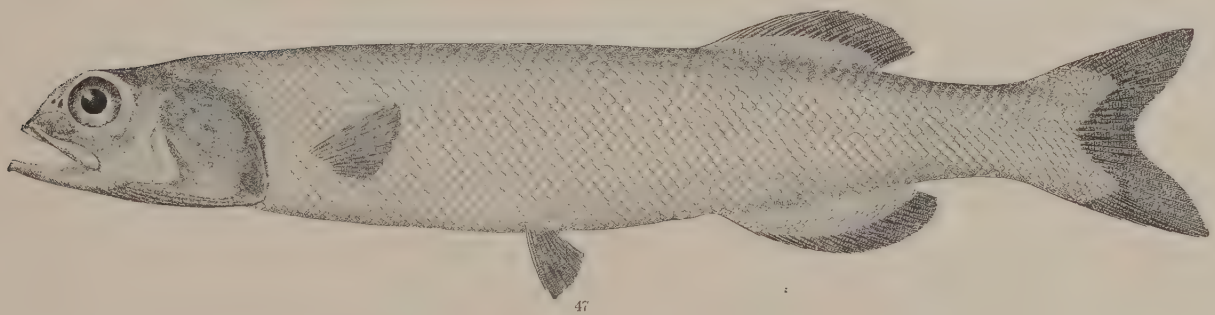

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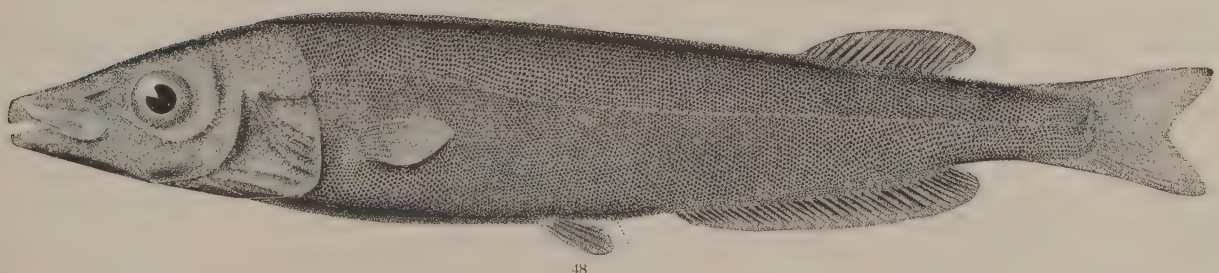
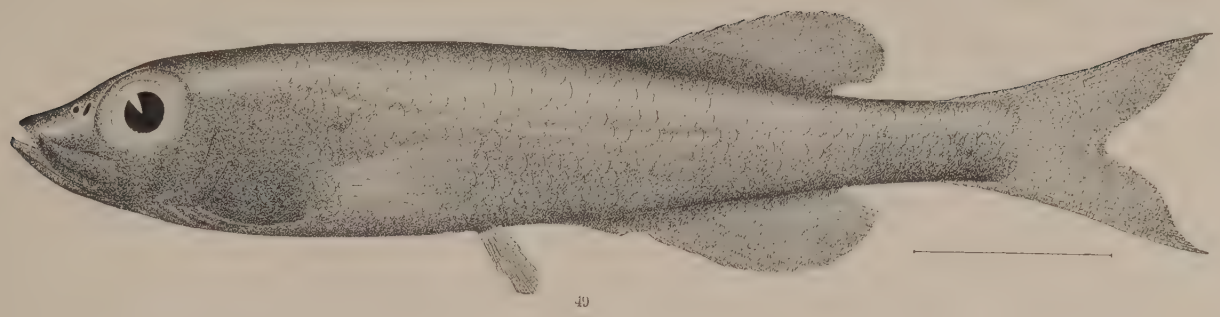


48

45. Alepocephalus Agassizii. (p. 37.)
46. Alepocephalus productus. (p. 37.)
47. Alepocephalus Bairdii. (p. 38.)
48. Conocara McDonaldi. (p. 39.)



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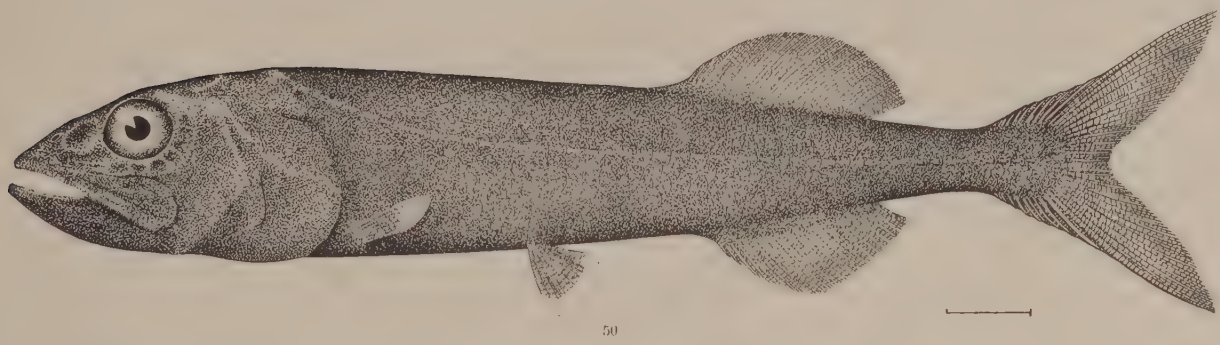

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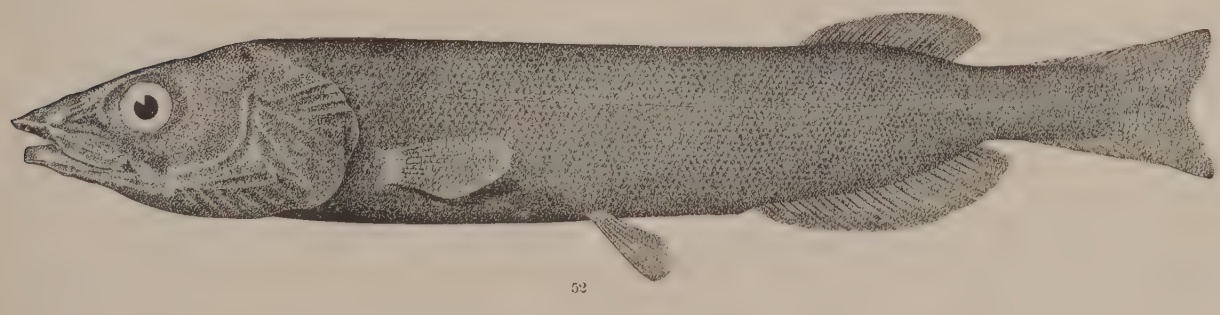
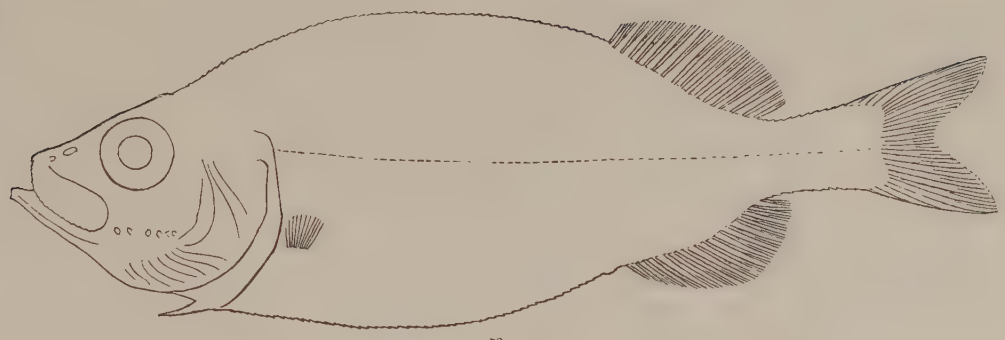


52

49. Bathytroctes antillarum. (p. 44.)
50. Bathytroctes æquatoris. (p. 44.)
51. Aleposomus Copei. (p. 47.)
52. Pterothrissus gissu. (p. 51.)



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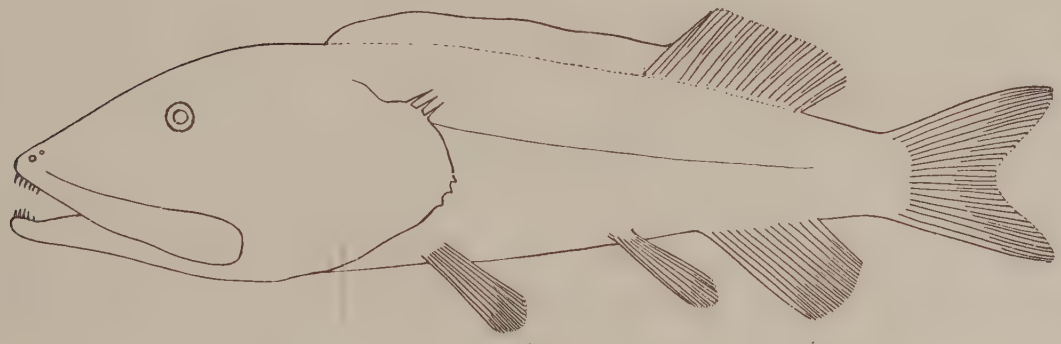

54

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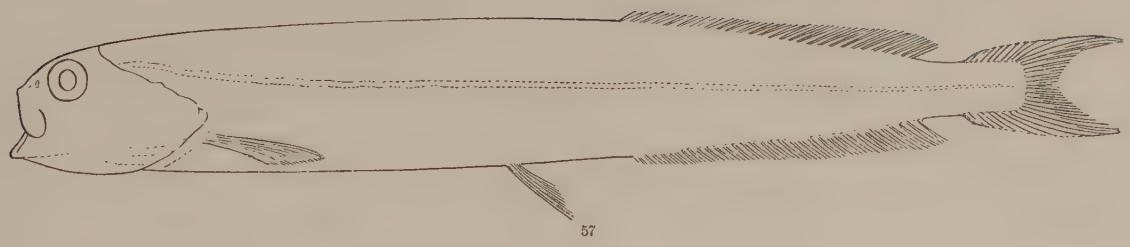
53. Platytroctes apus. (p. 46.)
55. Aulastomatomorpha phosphorops. (p. 50.)
54. Anomalopterus pinguis. (p. 49.)
56. Leptoderma macrops. (p. 49.)



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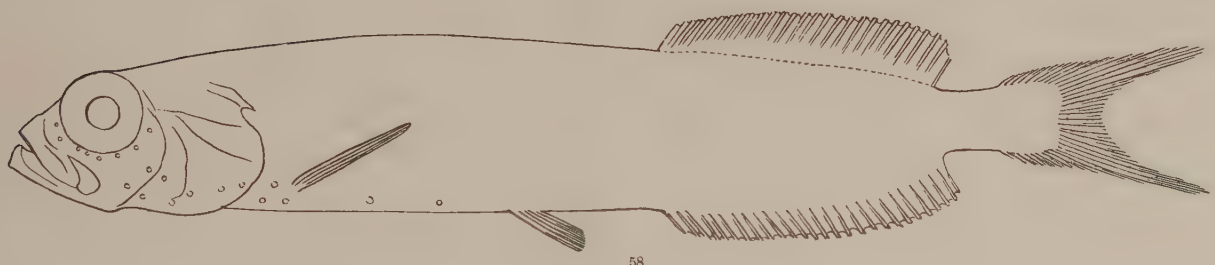

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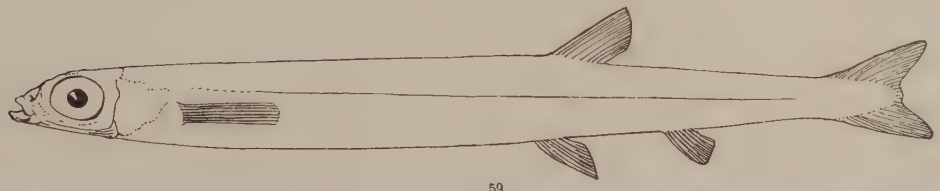

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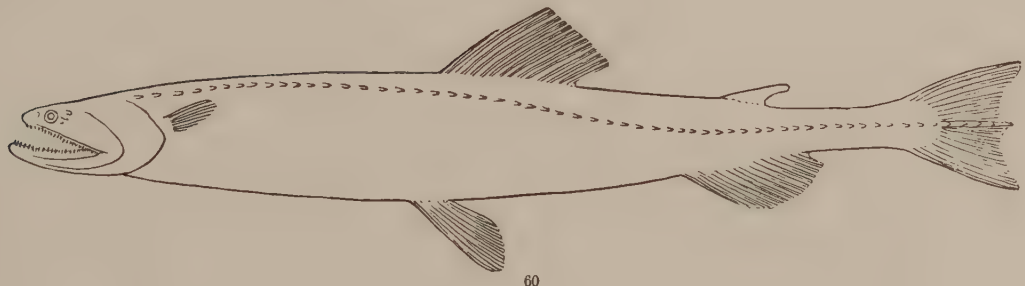
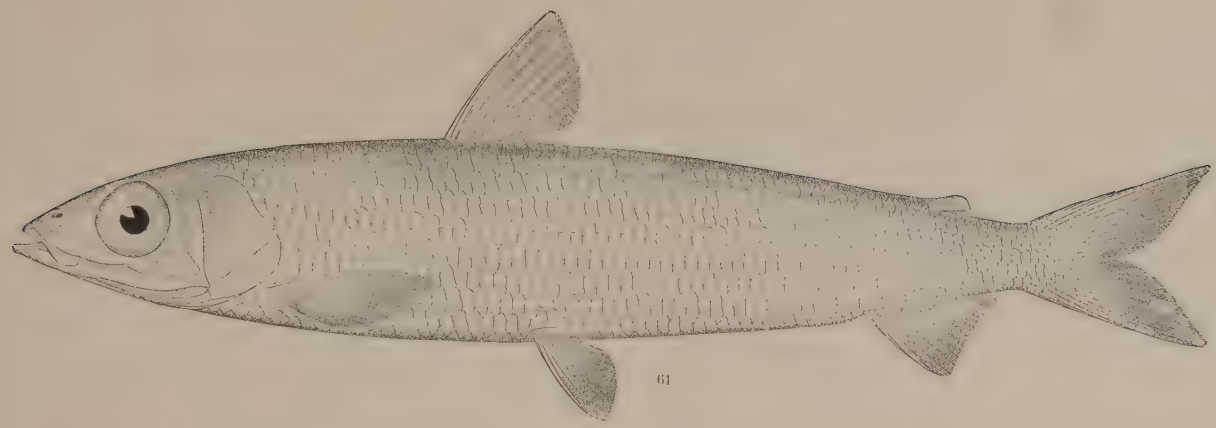


60

57. Xenodermichthys nodulosus. (p. 46.)
58. Aleposomus socialis. (p. 48.)
59. Microstoma rotundatum. (p. 53.)
60. Harpodon macrochir. (p. 59.)



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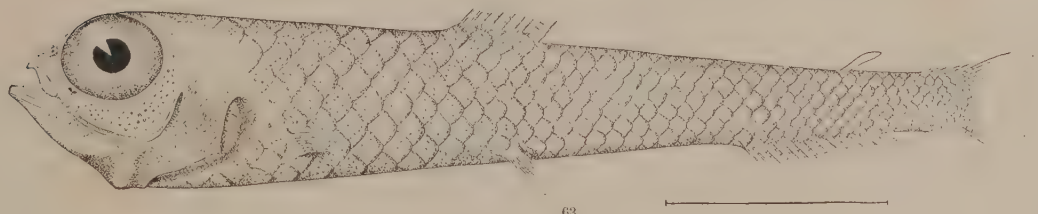

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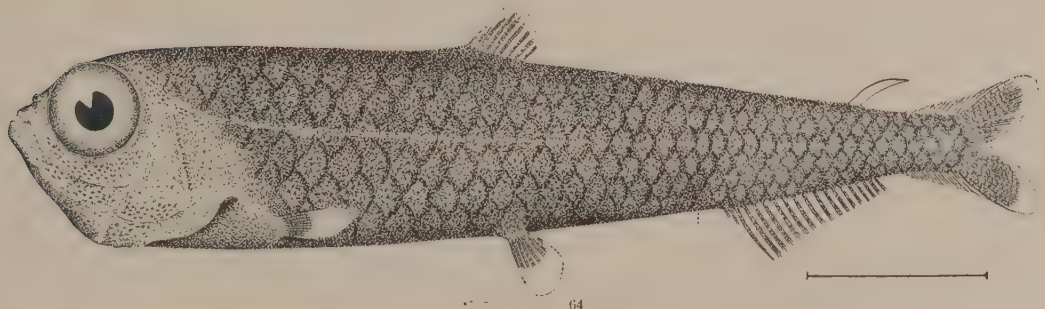

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61. Argentina silus. (p. 52.)
62. Argentina striata. (p. 52.)
63. Bathylagus euryops. (p. 55.)
64. Bathylagus Benedicti. (p. 55.)

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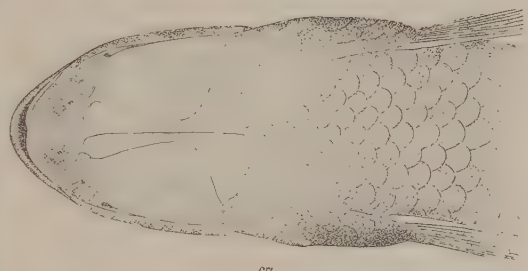

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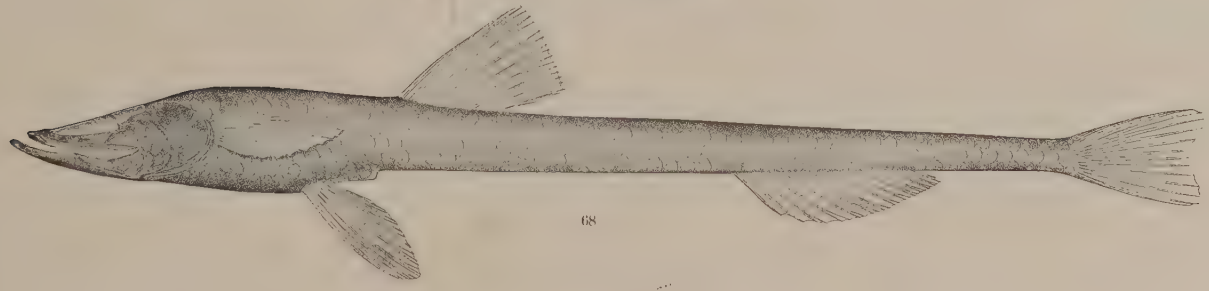
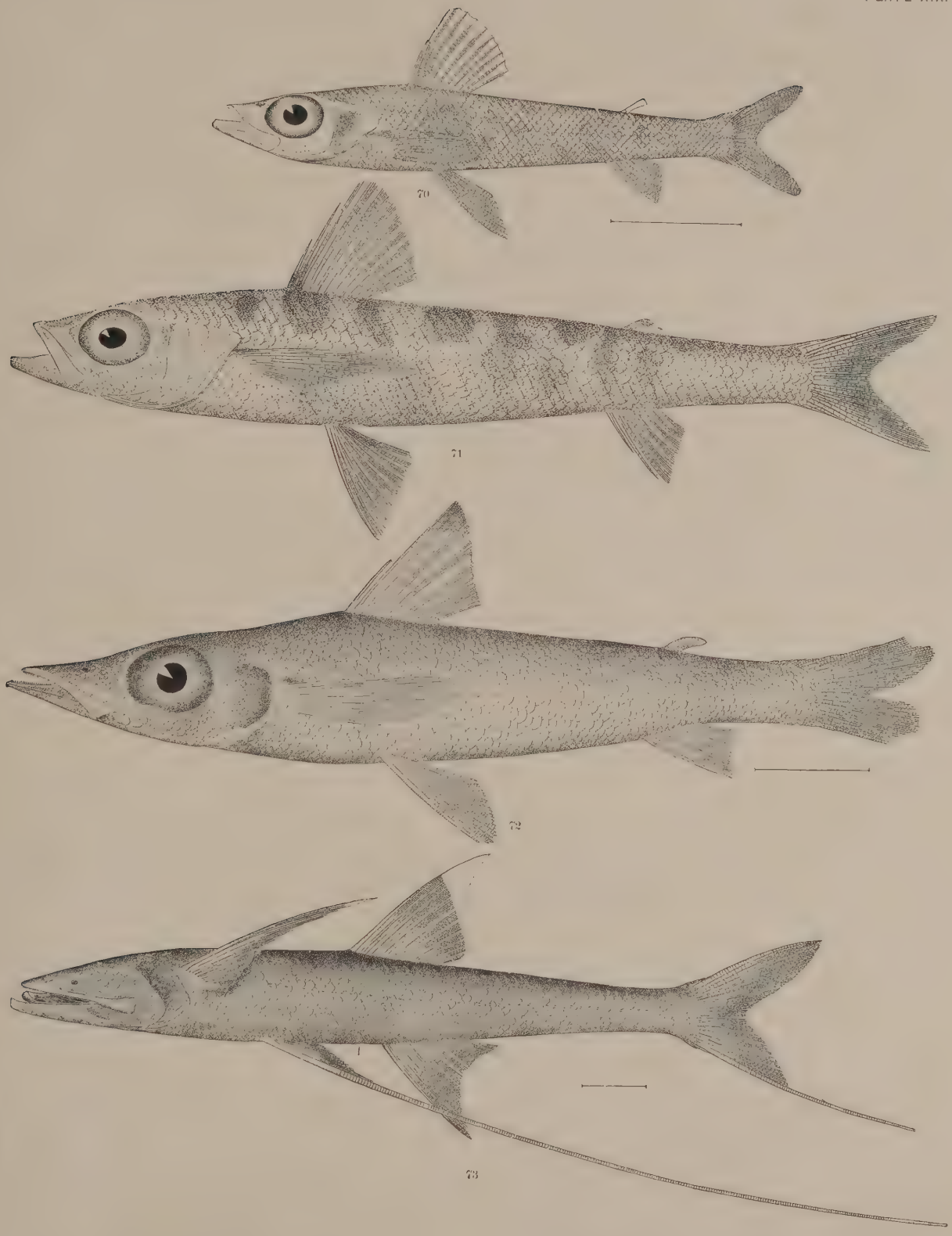


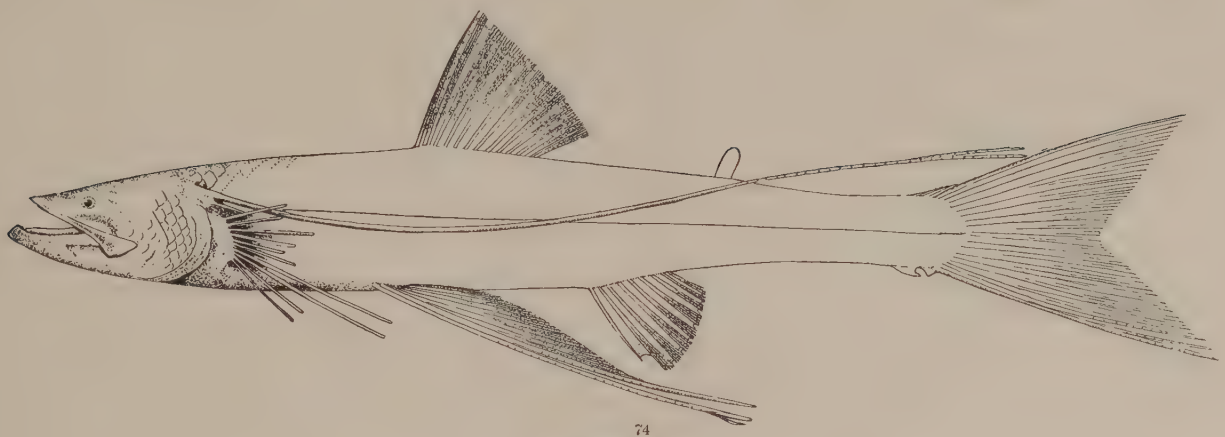
68

69

65, 66. Bathysaurus ferox. (p. 58.) 67, 68. Ipnops Murrayi. (p. 67.) 69. Bathylaco nigricans. (p. 57.)



70. Chlorophthalmus Agassizii. (p. 60.)
71. Chlorophthalmus chalybeius. (p. 60.)
72. Chlorophthalmus trucculentus. (p. 61.)
73. Benthosaurus grallator. (p. 62.)



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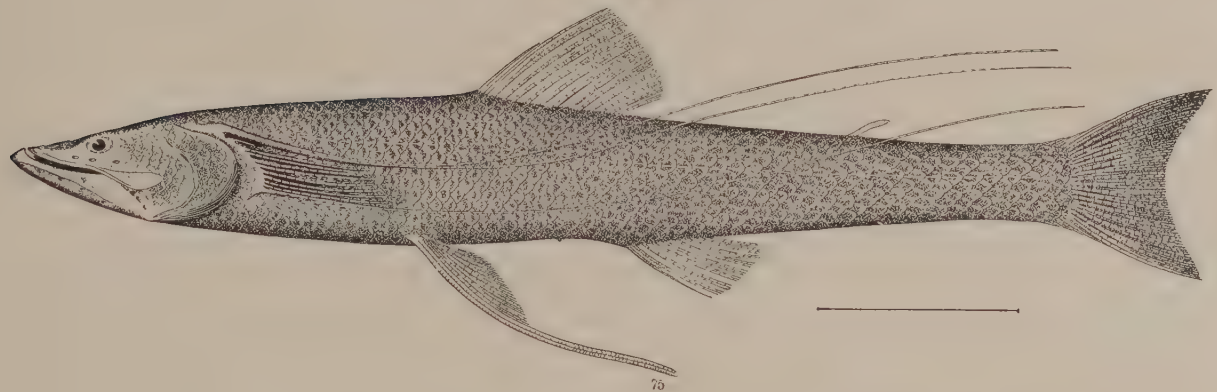

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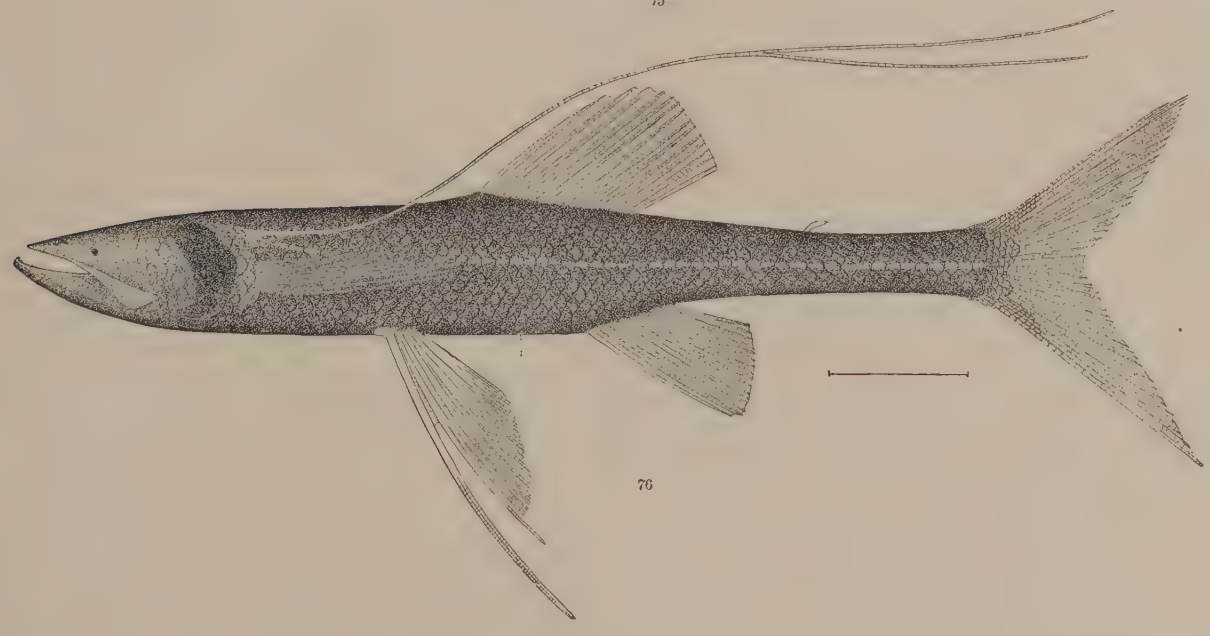
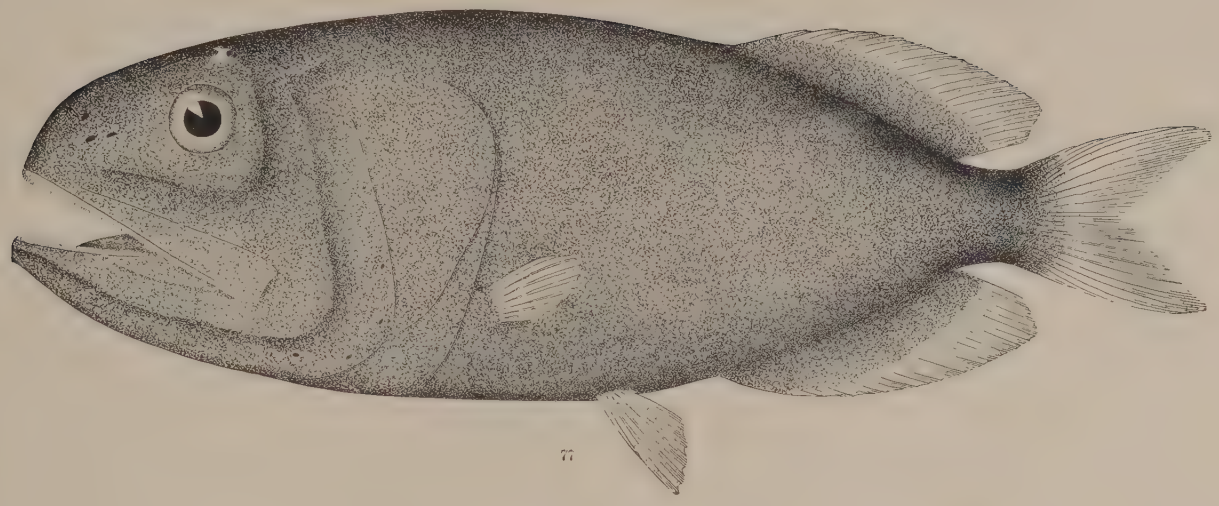


76

74. Bathypterois dubius. (p. 64.)
75. Bathypterois quadrifilis. (p. 65.)
76. Bathypterois longipes. (p. 66.)



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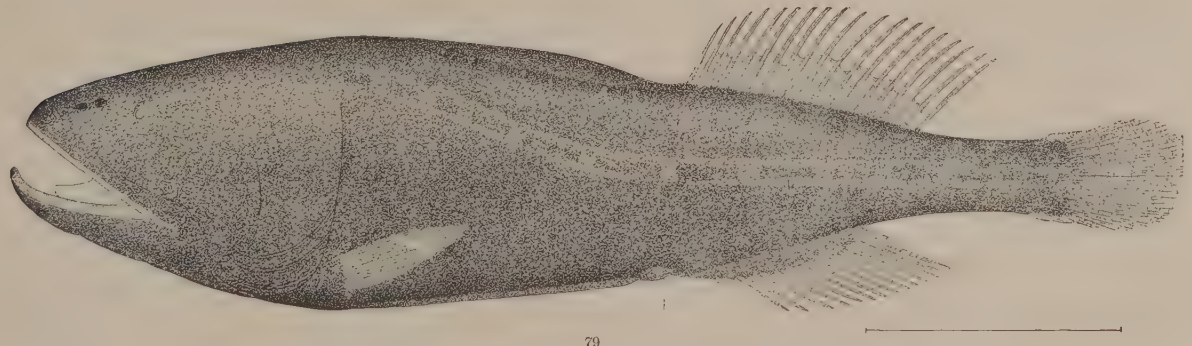


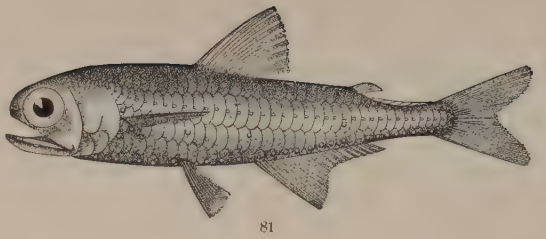
79

77. Rondeletia bicolor. (p. 68.)

78. Cetomimus Gillii. (p. 69.)

79. Cetomimus Storeri. (p. 69.)

80



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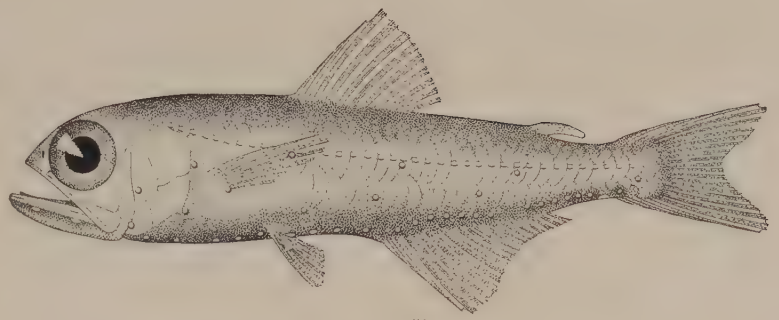

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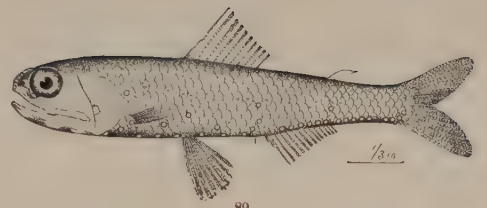
80. Myctophum punctatum. (p. 71.)
82. Myctophum Humboldti. (p. 73.)
84. Myctophum remiger. (p. 75.)

81. Myctophum opalinum. (p. 72.)
83. Myctophum Benoiti. (p. 74.)
85. Benthosema Mülleri. (p. 76.)

86. LAMPANYCTUS CROCODILUS. (p. 79.)
87. LAMPANYCTUS GEMELLARII. (p. 80.)
88. LAMPANYCTUS GEMMIFER. (p. 80.)



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89. Lampanyctus lacerta. (p. 81.)

92. Lampanyctus alatus. (p. 79.)

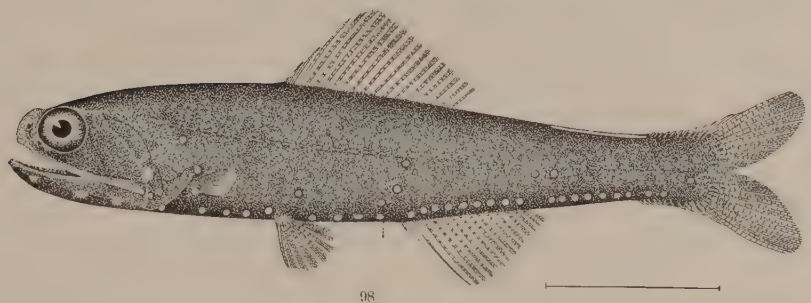
91. Ceratoscopelus maderensis. (p. 82.)

90. Lampanyctus Güntheri. (p. 79.)

93. Diaphus theta. (p. 89)

94. NOTOSCOPELUS RESPLENDENS. (p. 83.) 95. NOTOSCOPELUS CASTANEUS. (p. 84.)
96. NOTOSCOPELUS CAUDISPINOSUS. (p. 84.)

97



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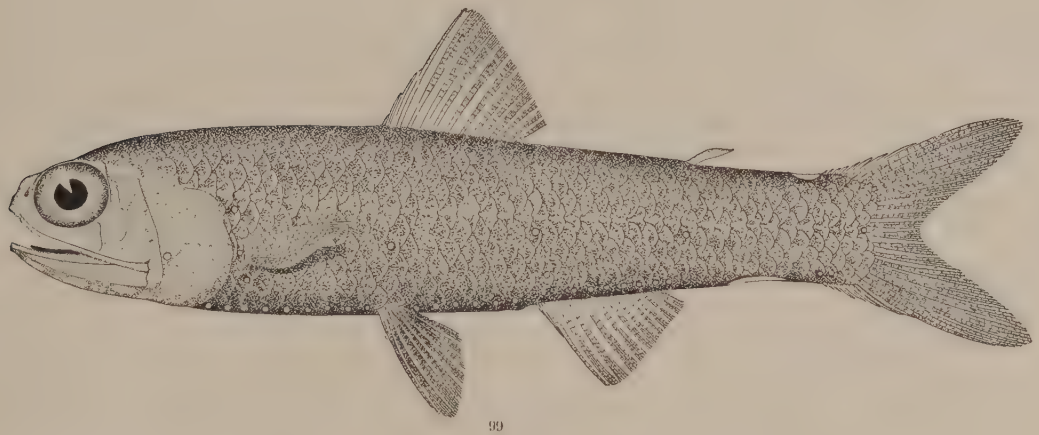

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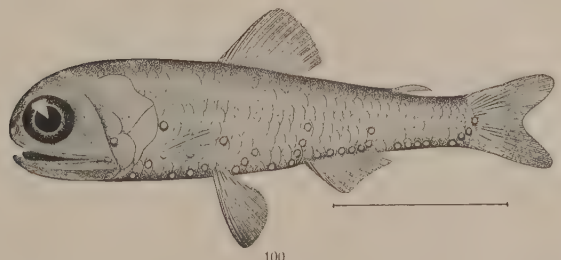

100

97. Notoscopelus quercinus. (p. 83.)
98. Notoscopelus margaritiferus. (p. 84.)
99. Lampadena speculigera. (p. 83.)
100. Collettia Rafinesquei. (p. 88.)

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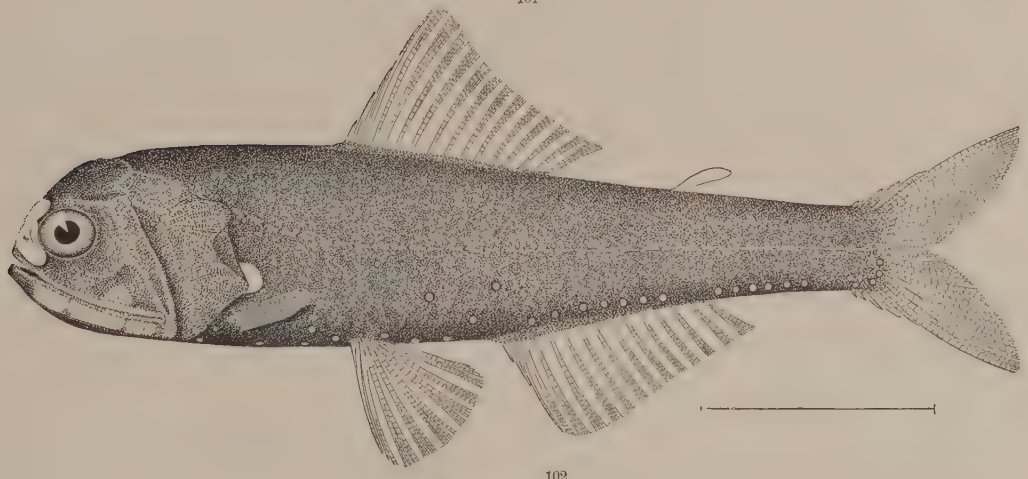

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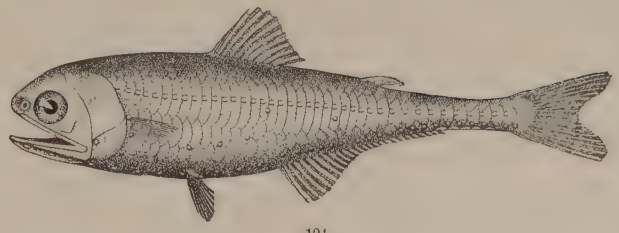
103

101. ÆTHOPRORA METOPOCLAMPA. (p. 86.) 102. ÆTHOPRORA LUCIDA. (p. 87.)
103. ÆTHOPRORA EFFULGENS. (p. 87.)



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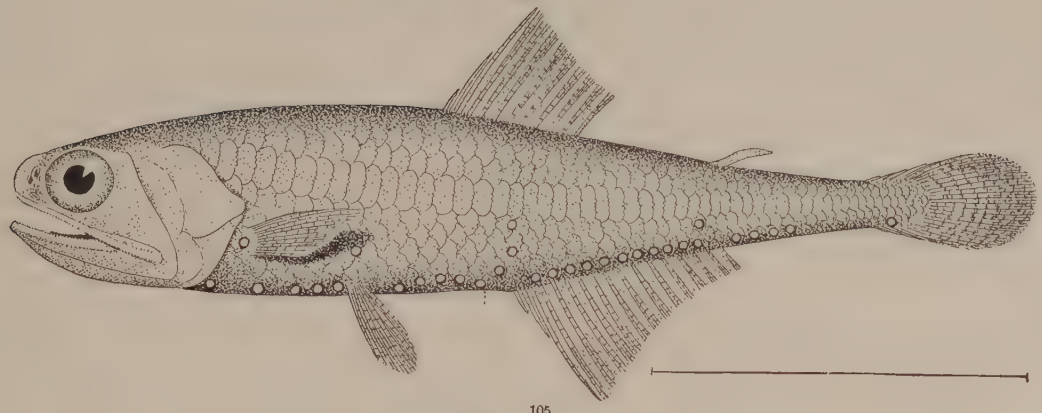

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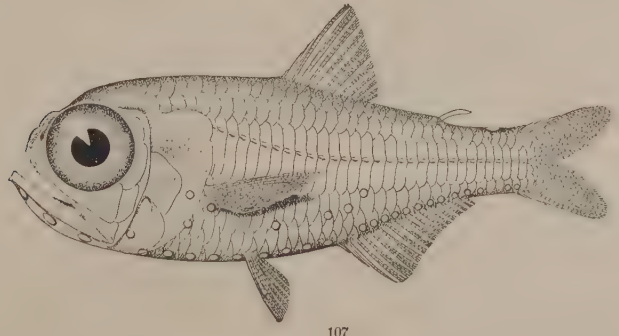
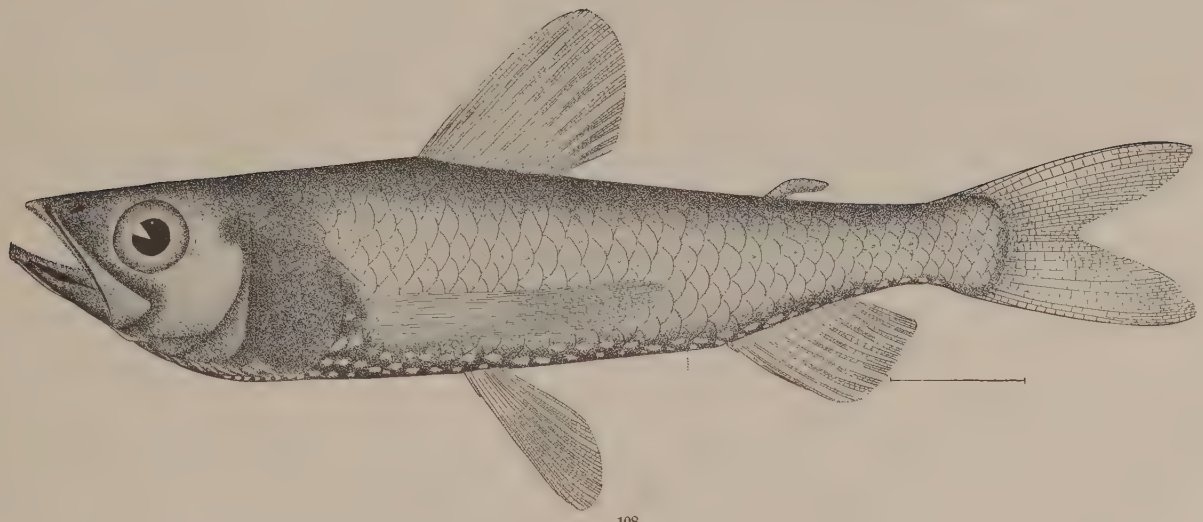


107

104. Rhinoscopelus Coccoi. (p. 90.)
106. Dasyscopelus asper. (p. 92.)

105. Tarletonbeania tenua. (p. 89.)
107. Electrona Rissoi. (p. 91.)



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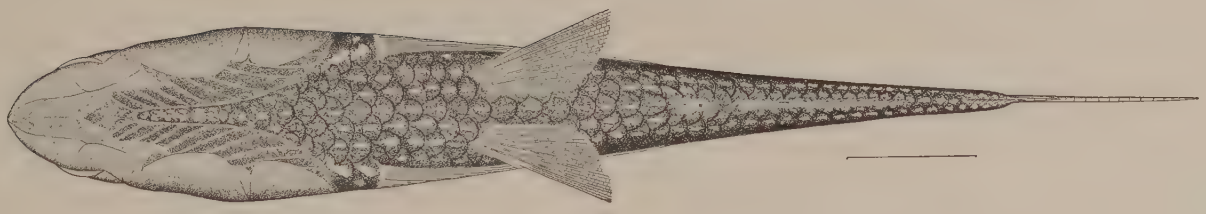

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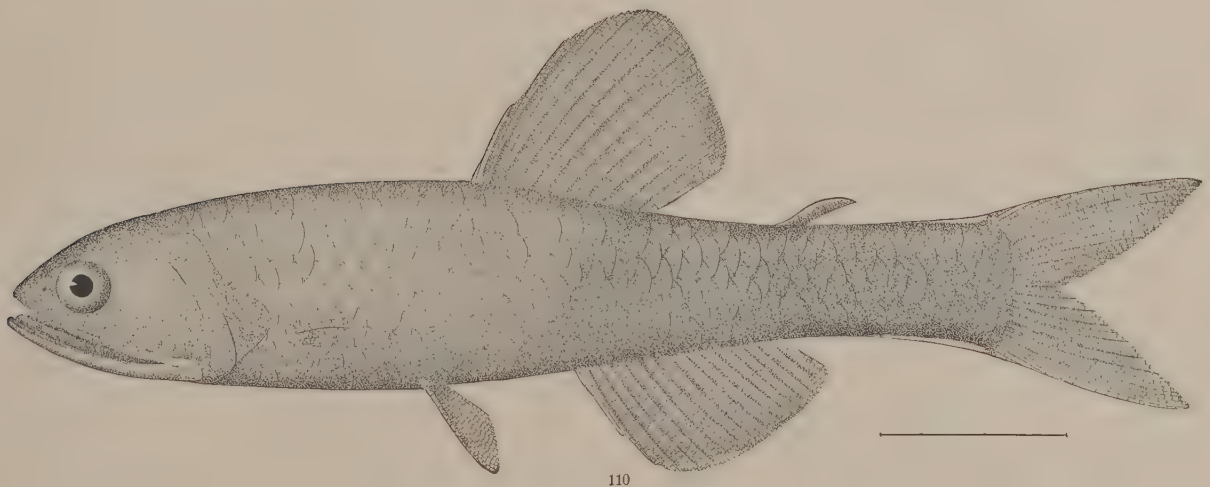

110

108, 109. NEOSCOPELUS MACROLEPIDOTUS. (p. 93.)

110. NANNOBRACHIUM MACDONALDI. (p. 94.)

111

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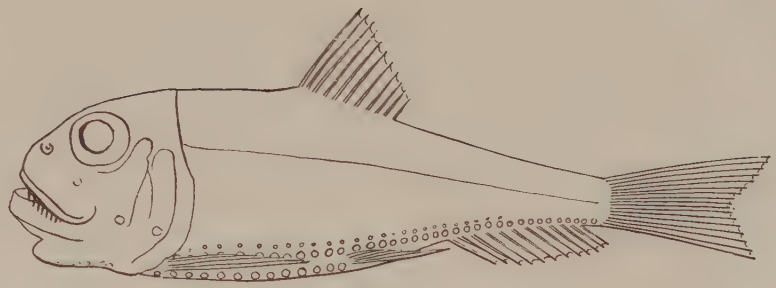

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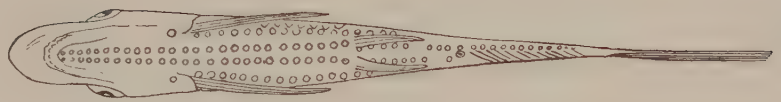

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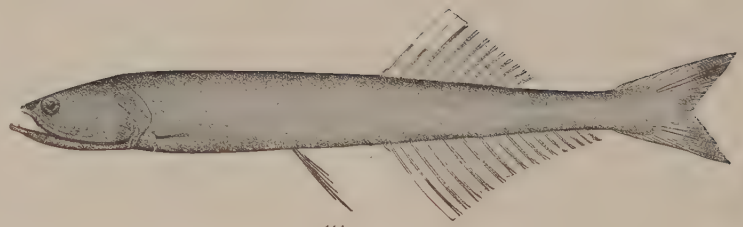

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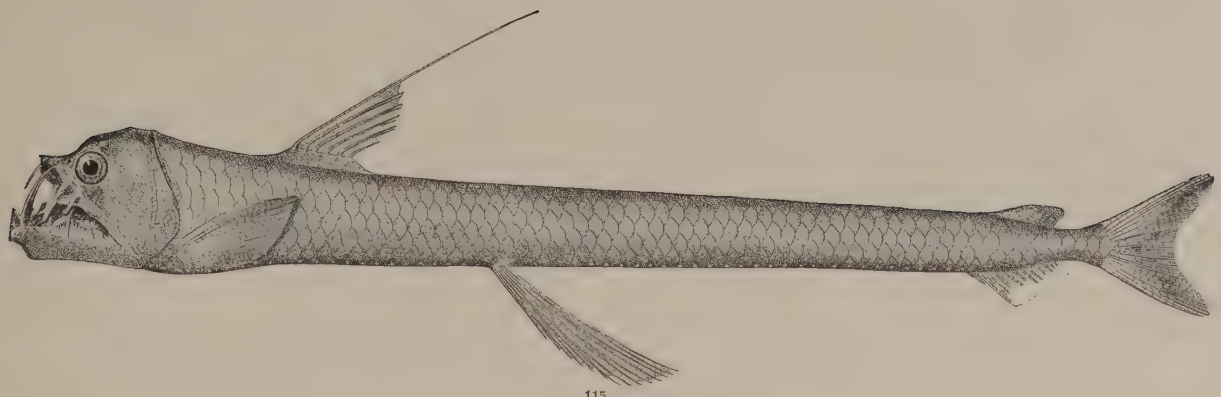
111. Maurolicus borealis. (p. 96.)
113, 113*a*. Ichthyococcus ovatus. (p. 95.)

112. Opisthoproctus soleatus. (p. 95.)
114. Cyclothone microdon. (p. 99.)



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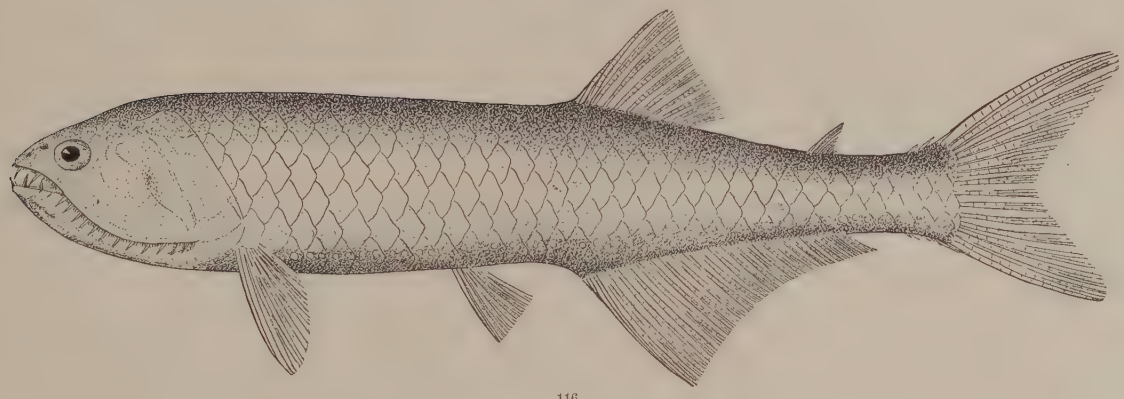

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115. Chauliodus Sloanii. (p. 96.)
117. Gonostoma brevidens. (p. 98.)

116. Gonostoma denudatum. (p. 98.)
118. Cyclothone bathyphila. (p. 100.)

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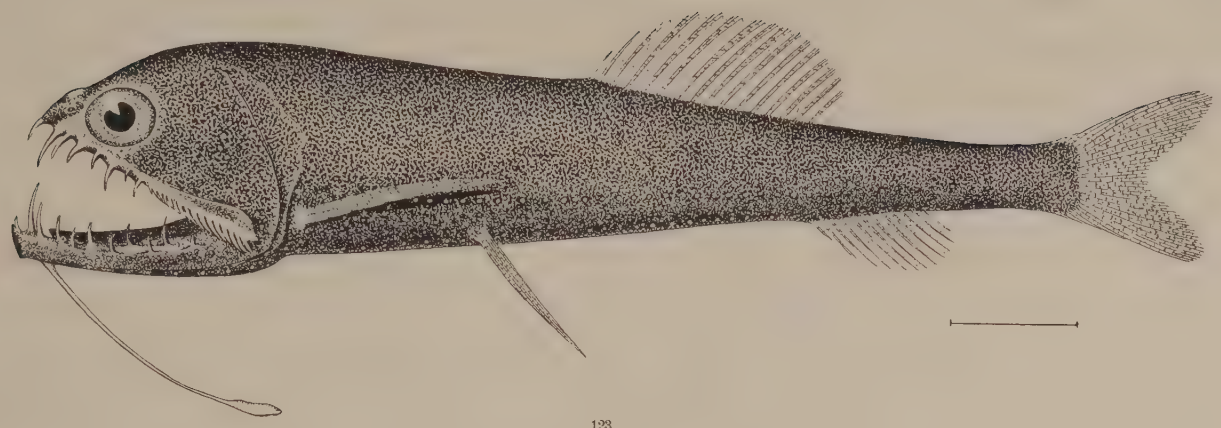
119. Cyclothone elongata. (p. 101.)
120. Bonapartia pedaliota. (p. 102.)
121. Yarrella Blackfordi. (p. 103.)
122. Photichthys argenteus. (p. 104.)



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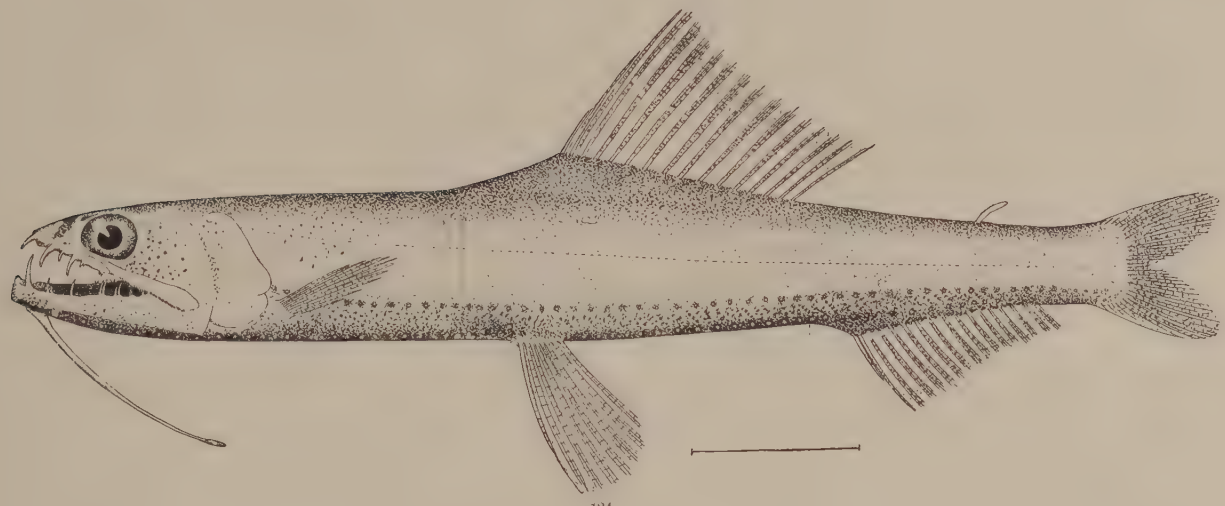

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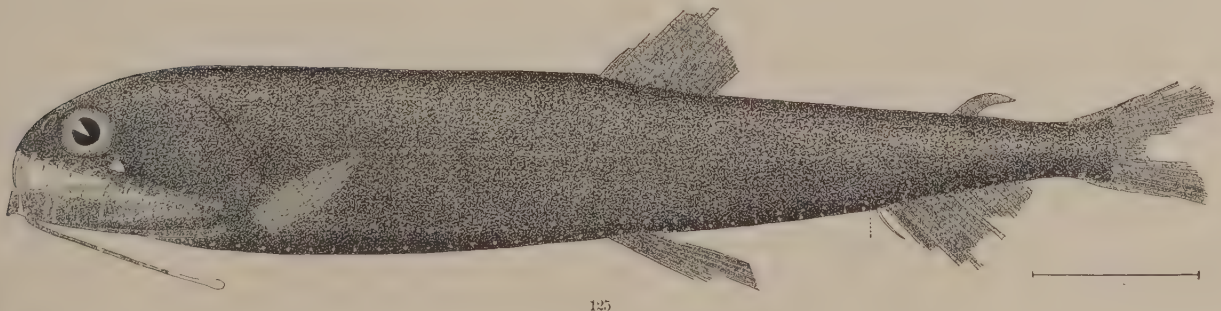
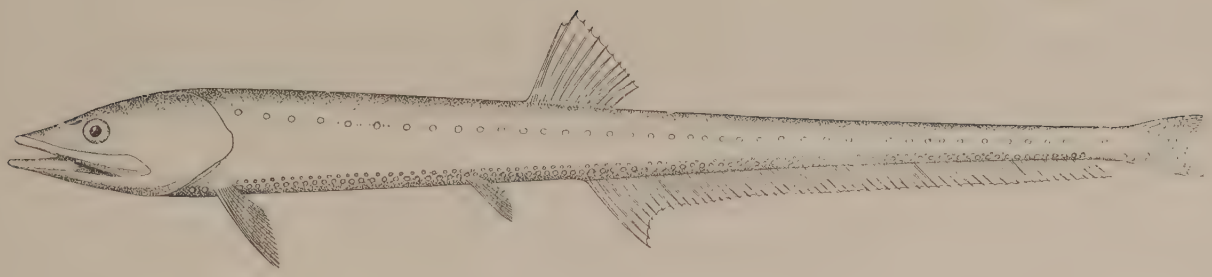


125

123. ASTRONESTHES NIGER. (p. 105.) 124. ASTRONESTHES GEMMIFER. (p. 105.) 125. ASTRONESTHES RICHARDSONII. (p. 106.



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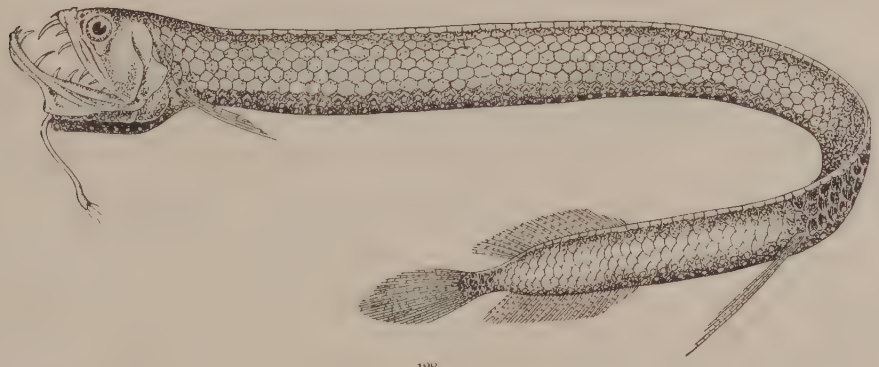

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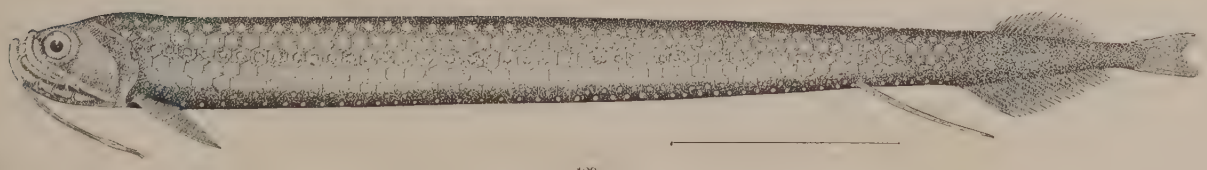
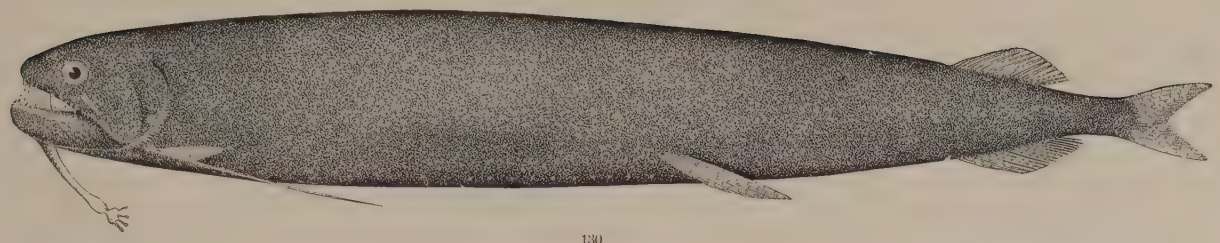


129

126. Diplophos tænia. (p. 104.)
127. Stomias ferox. (p. 107.)
128. Stomias boa. (p. 108.)
129. Stomias affinis. (p. 108.)



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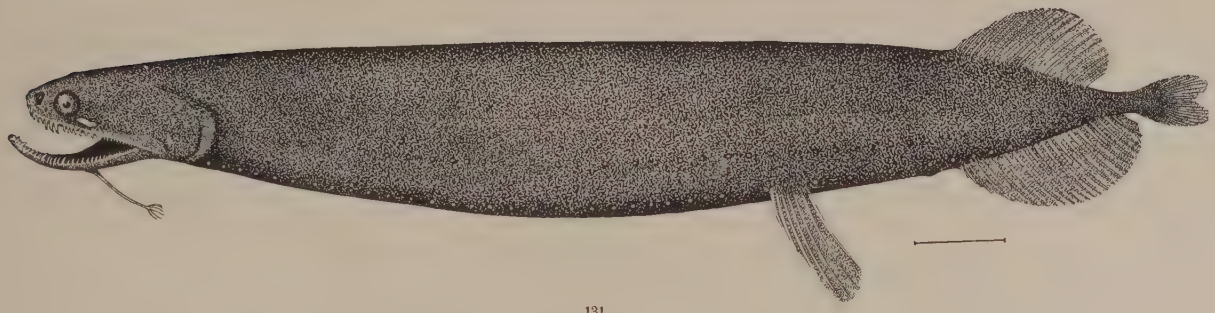

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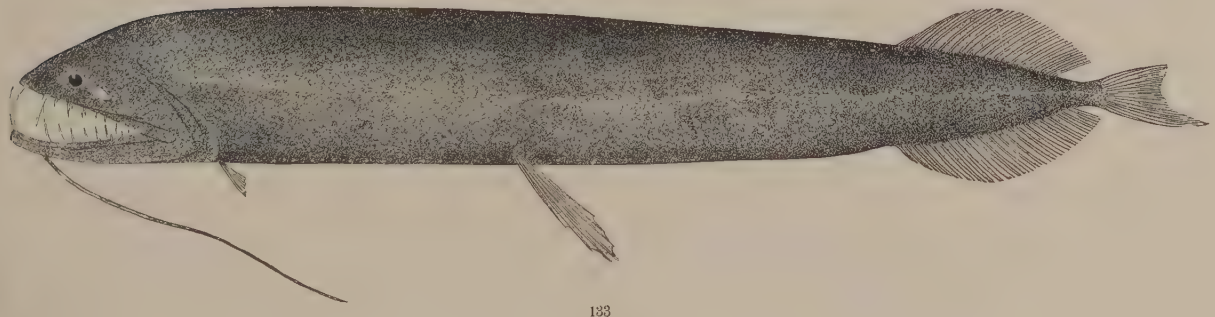
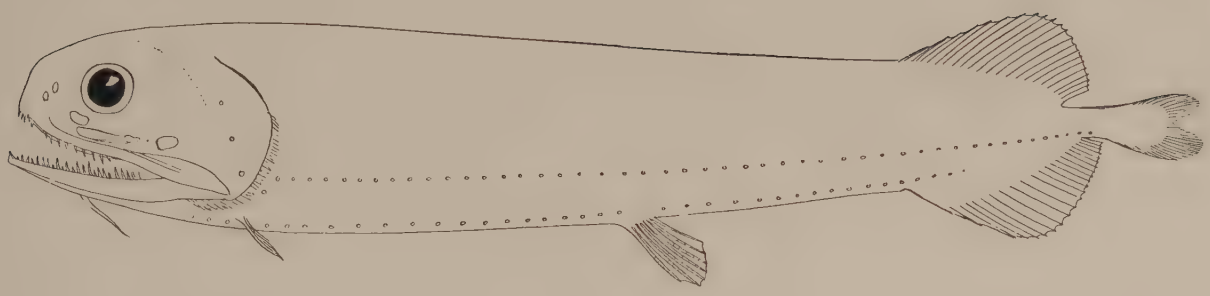


133

130. Echiostoma barbatum. (p. 109.)
131. Echiostoma margarita. (p. 109.)
132. Opostomias micripnus. (p. 110.)
133. Grammatostomias dentatus. (p. 110.)



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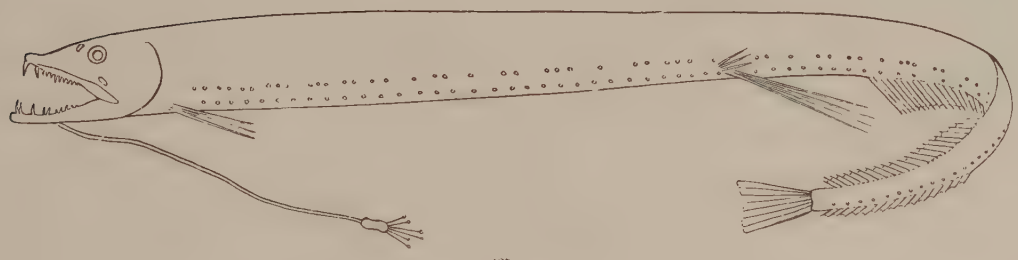

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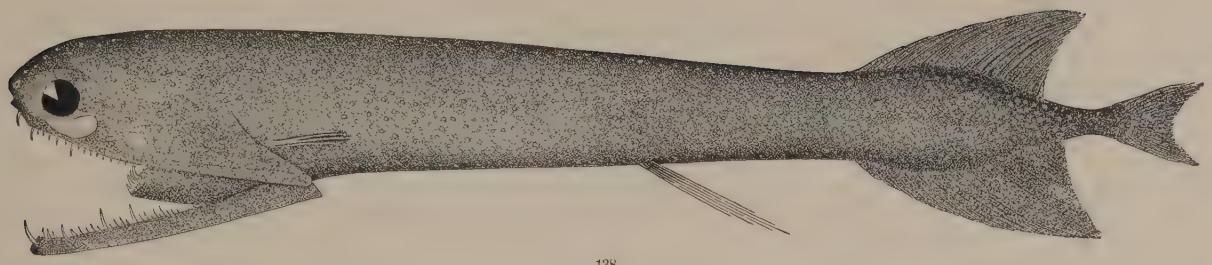
134. Pachystomias microdon. (p. 111.)
135. Eustomias obscurus. (p. 111.)
136. Bathophilus nigerrimus. (p. 111.)
137. Photonectes gracilis. (p. 112.)



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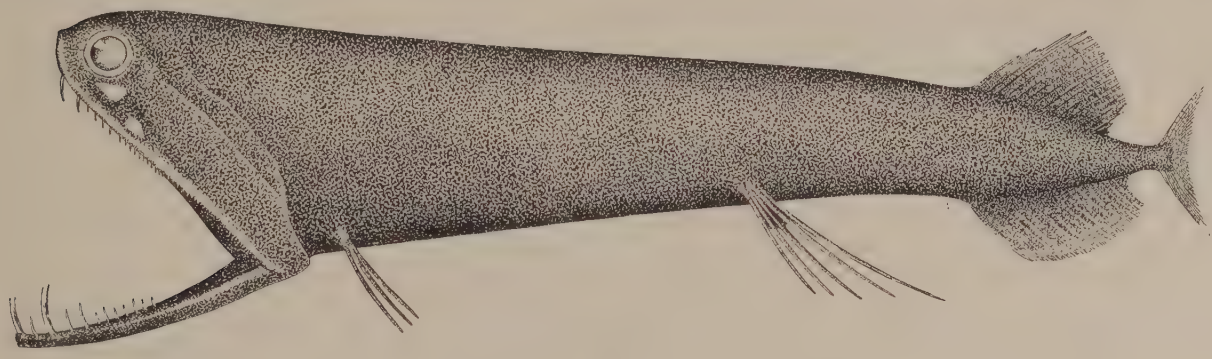

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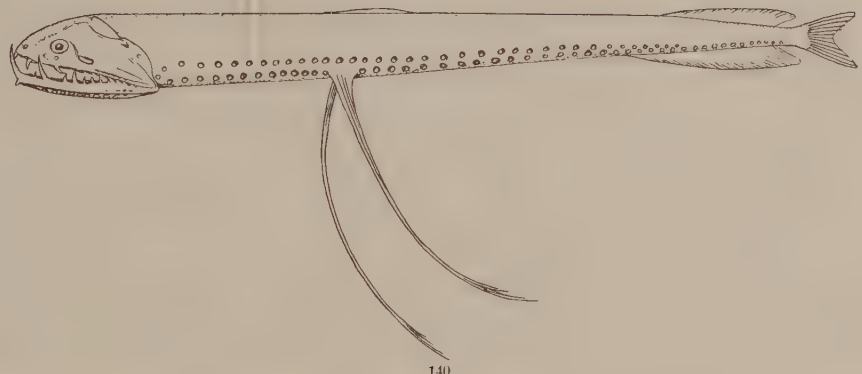

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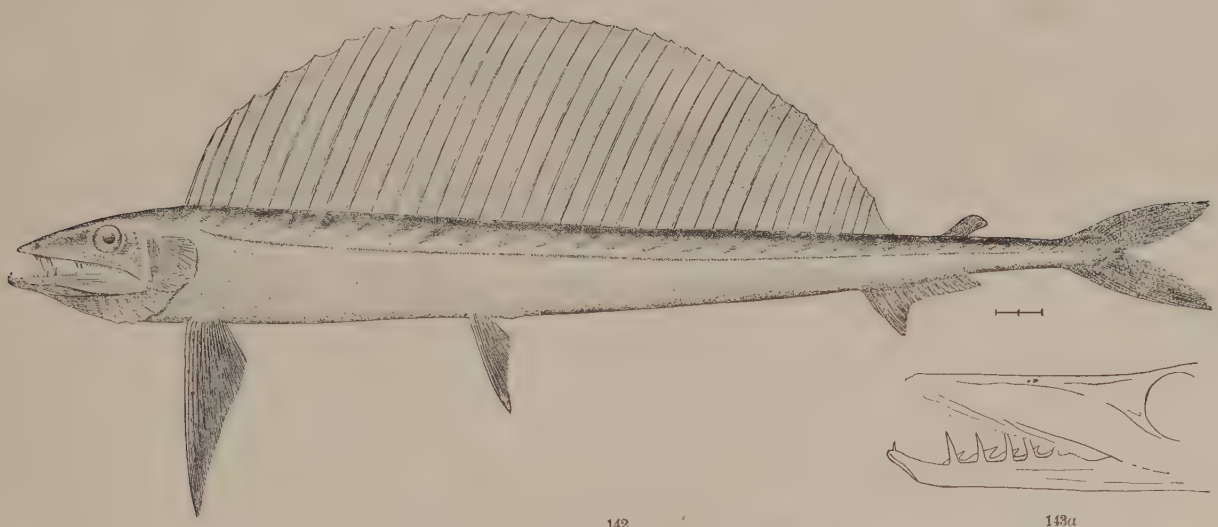
138. Malacosteus niger. (p. 114.)
140. Photostomias Guernei. (p. 115.)

139. Malacosteus choristodactylus. (p. 114.)
141. Thaumatostomias atrox. (p. 115.)



142 143a

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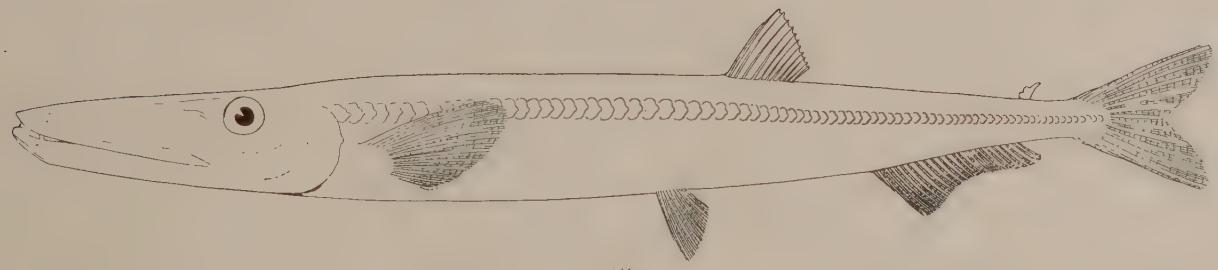

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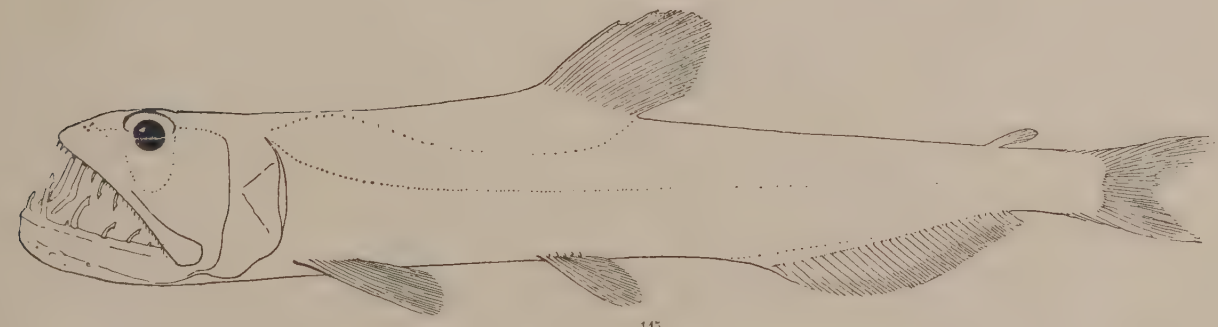

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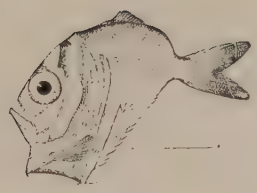
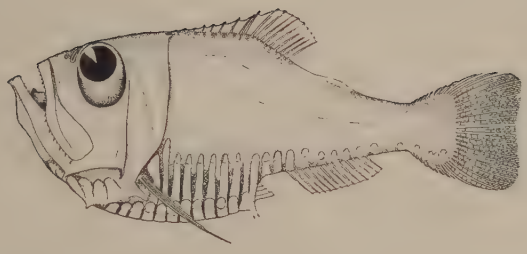
142. Alepisaurus ferox. (p. 117.)
143a. Paralepis coregonoides. (p. 119.)
143. Paralepis borealis. (p. 119.)
144. Sudis hyalina. (p. 121.)
145. Odontostomus hyalinus. (p. 121.)

146



146*b*



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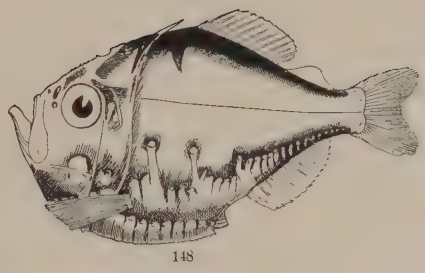

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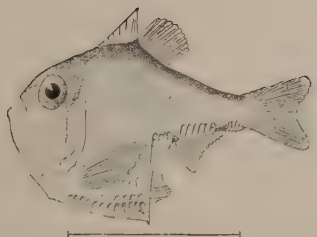
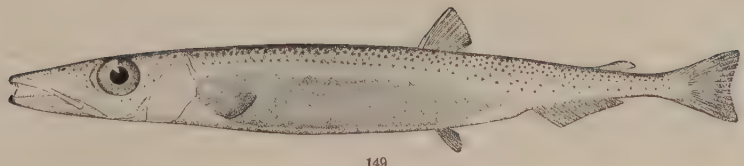


148*a*



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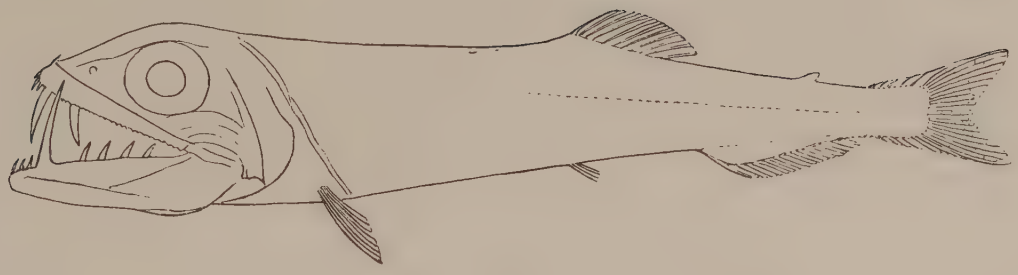
146, 146*b*. STERNOPTYX DIAPHANA. (p. 124.)
148. POLYIPNUS SPINOSUS. (p. 128.)
149. PARALEPIS COREGONOIDES. (p. 119.)

147. ARGYROPELECUS HEMIGYMNUS. (p. 126.)
148*a*. ARGYROPELECUS OLFERSII. (p. 126.)



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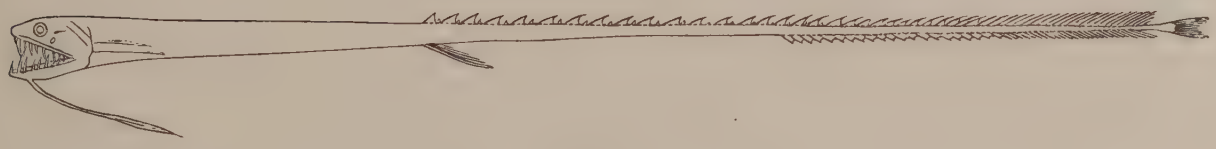

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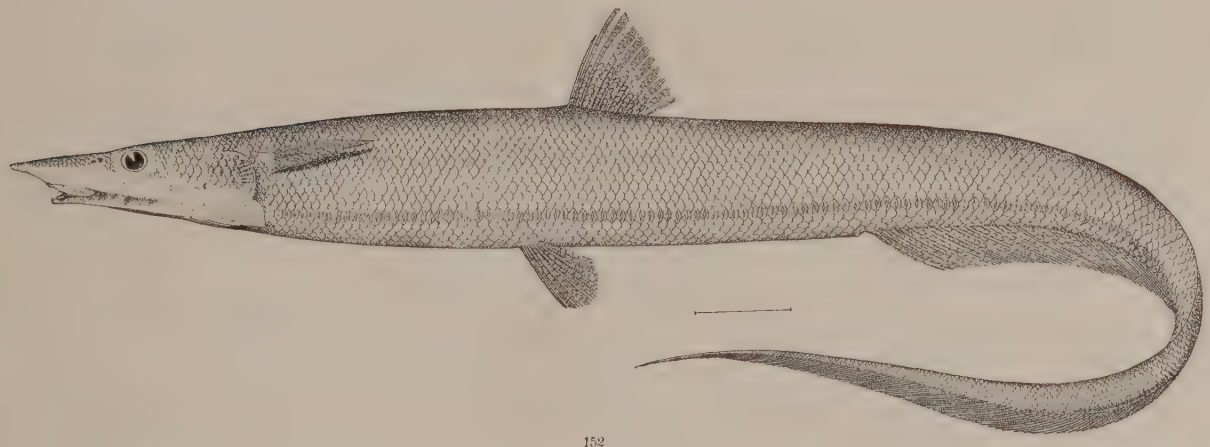

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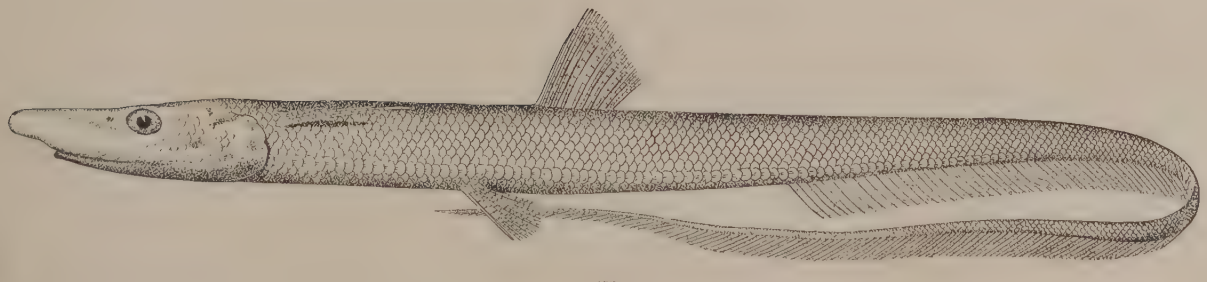
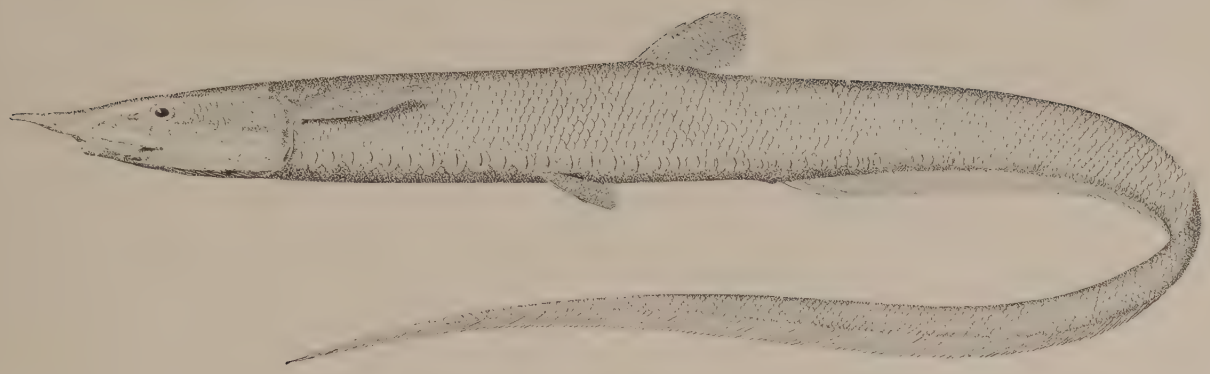


153

150. Omosudis Lowii. (p. 122.)
152. Halosaurus Oweni. (p. 130.)

151. Idiacanthus ferox. (p. 129.)
153. Halosaurus Johnsonianus. (p. 131.)



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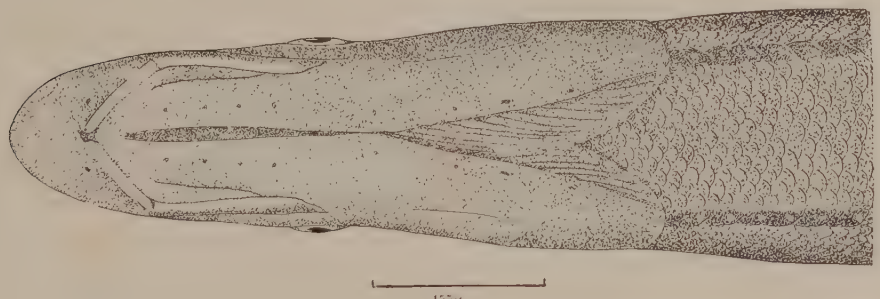
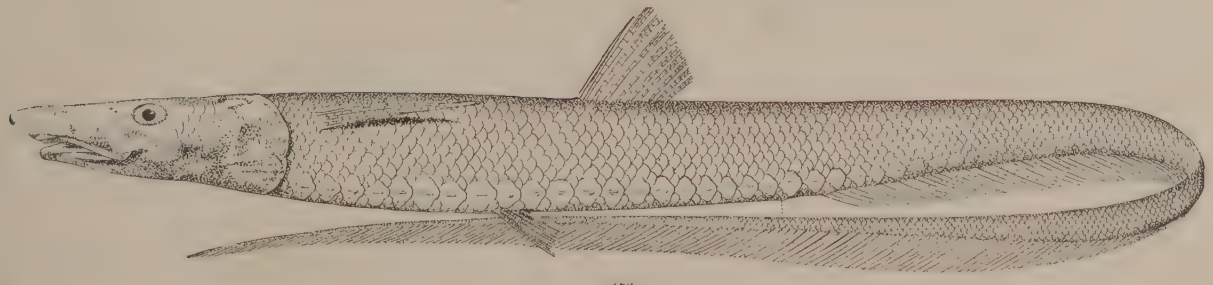
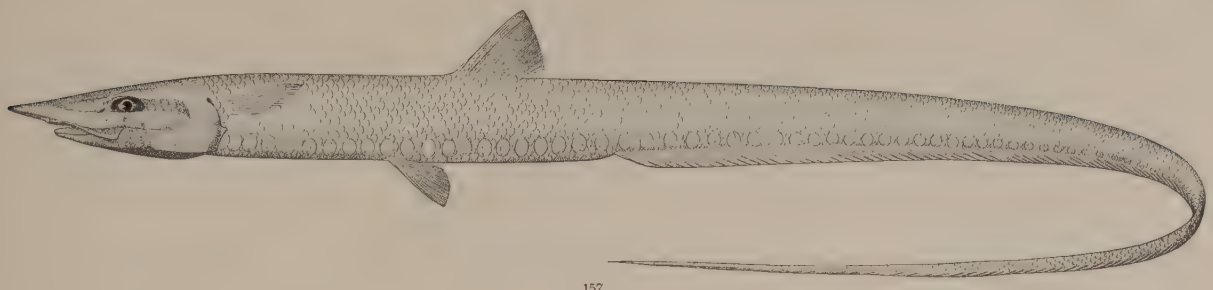


155*a*



156

154. Aldrovandia rostrata. (p. 132.)
155, 155*a*. Aldrovandia macrochira. (p. 133.)
156. Aldrovandia phalacrus. (p. 134.)



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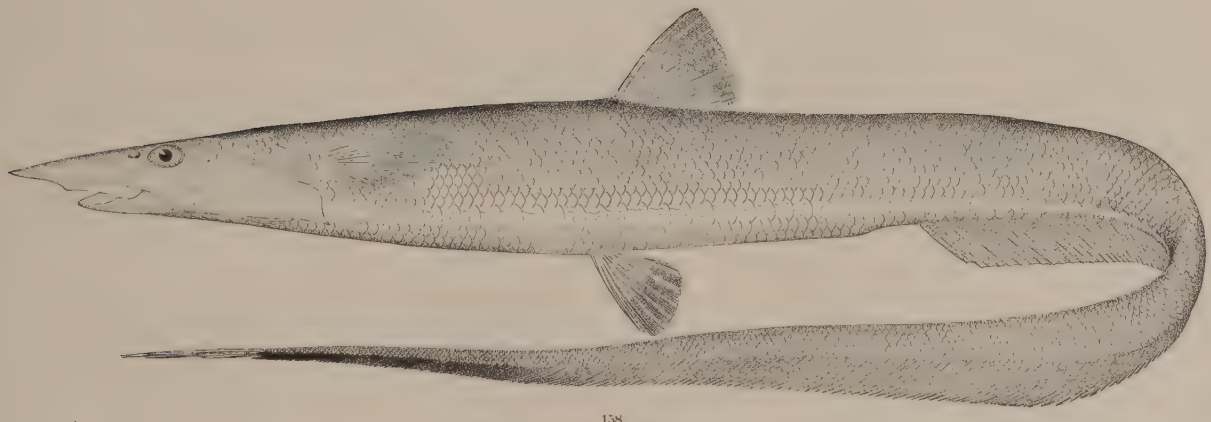

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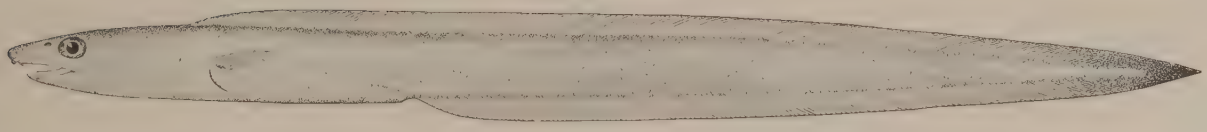

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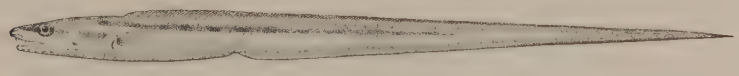
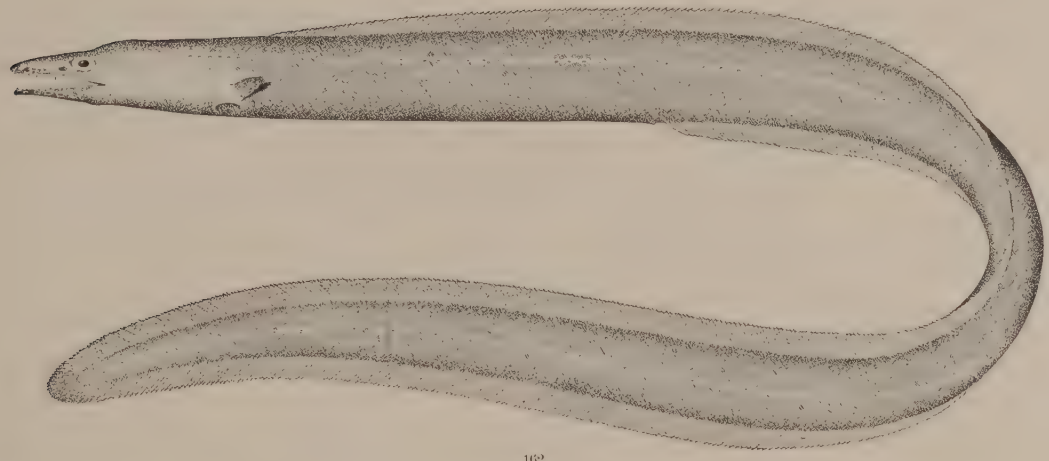


160

157. Aldrovandia gracilis. (p. 134.)
158. Aldrovandia pallida. (p. 135.)
159. Congermuræna flava. (p. 138.)
160. Uroconger vicinus. (p. 138.)

161



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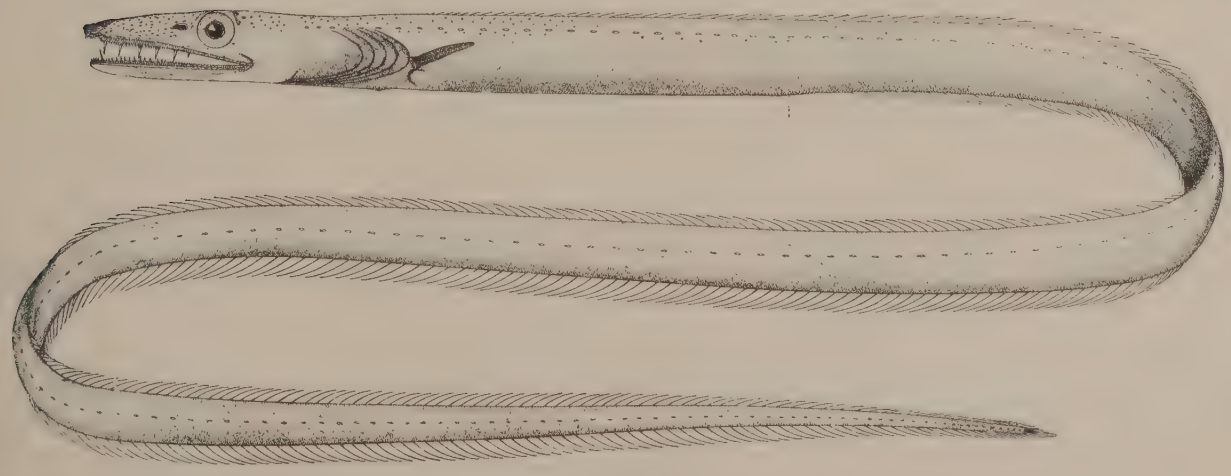
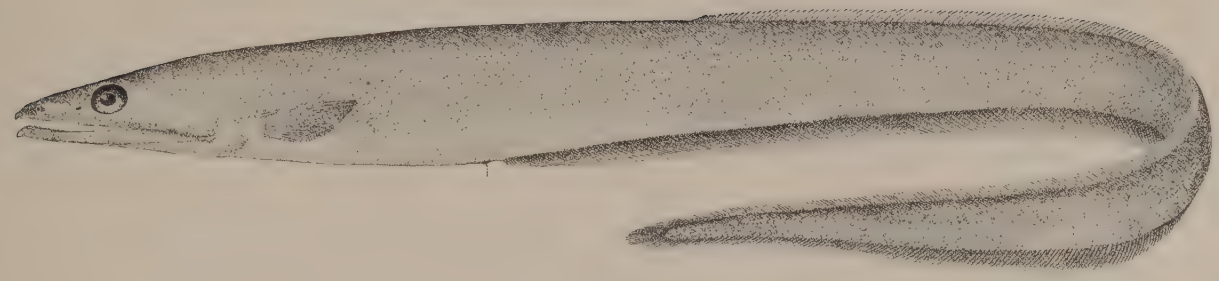


163

161. Simenchelys parasiticus. (p. 139.)
162. Ilyophis brunneus. (p. 141.)
163. Hoplunnis diomedianus. (p. 146.)



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166

164. Synaphobranchus pinnatus. (p. 143.) 165. Histiobranchus infernalis. (p. 145.)
166. Pisoodonophis cruentifer. (p. 147.)

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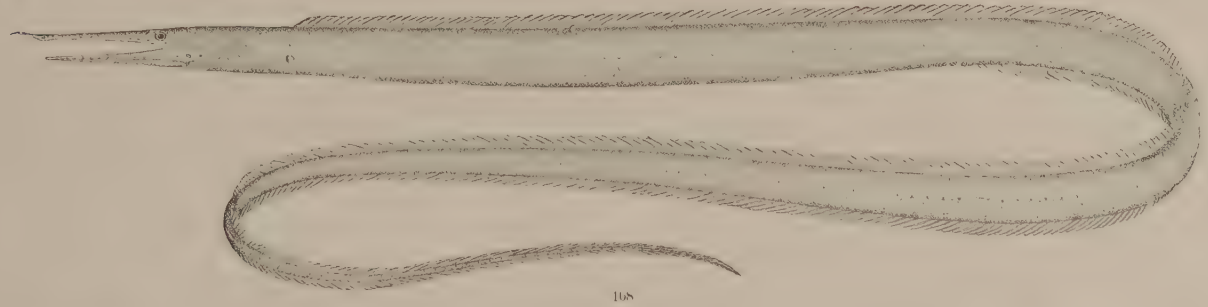

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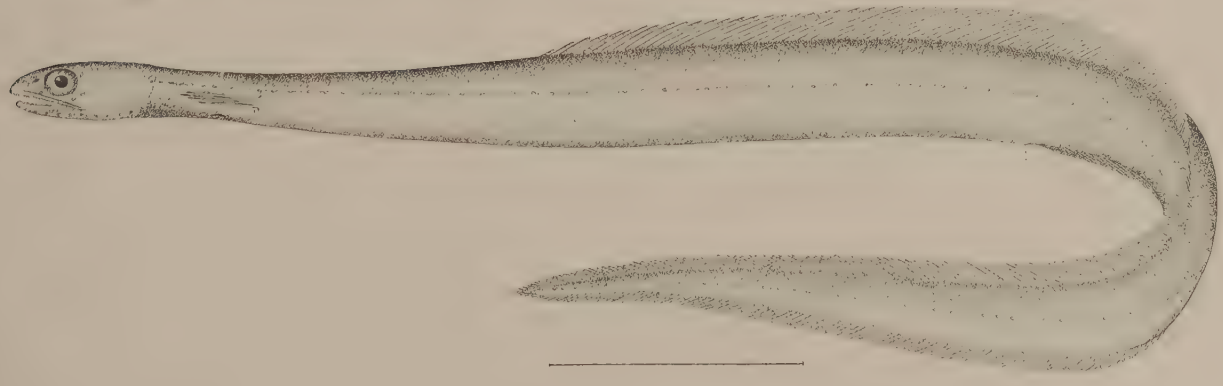
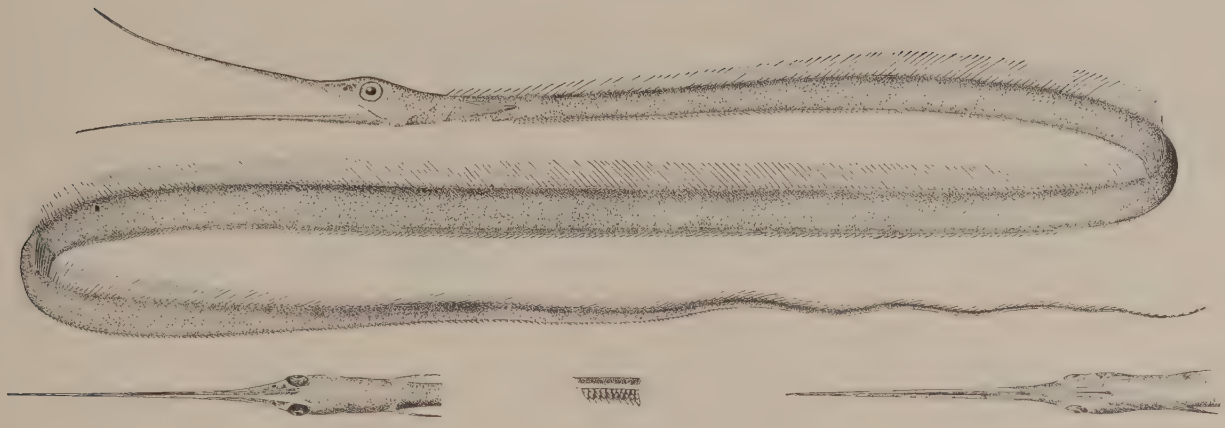
169a

169b



169

167. Myrus pachyrhynchus. (p. 148.)
168. Venefica procera. (p. 149.)
169, 169*a*, *b*. Derichthys serpentinus. (p. 161.)



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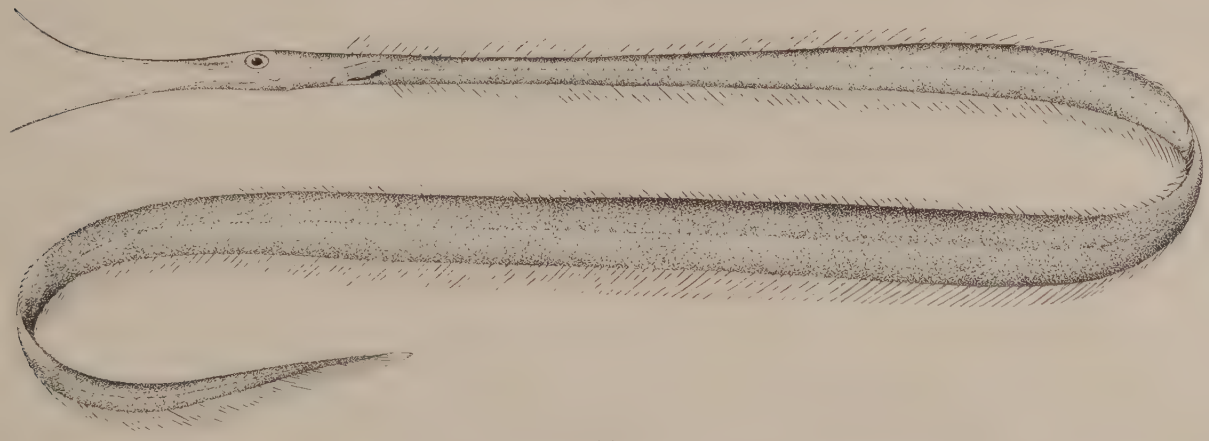

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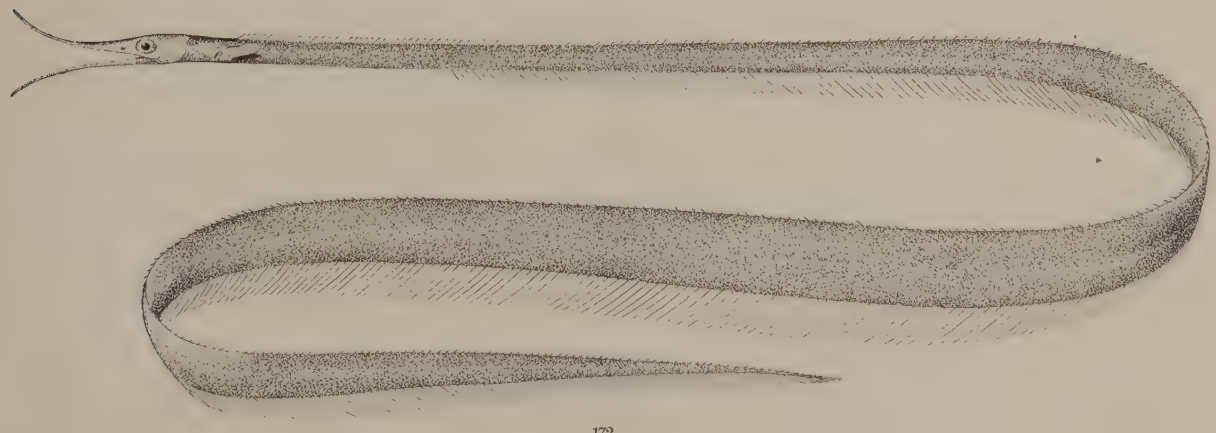
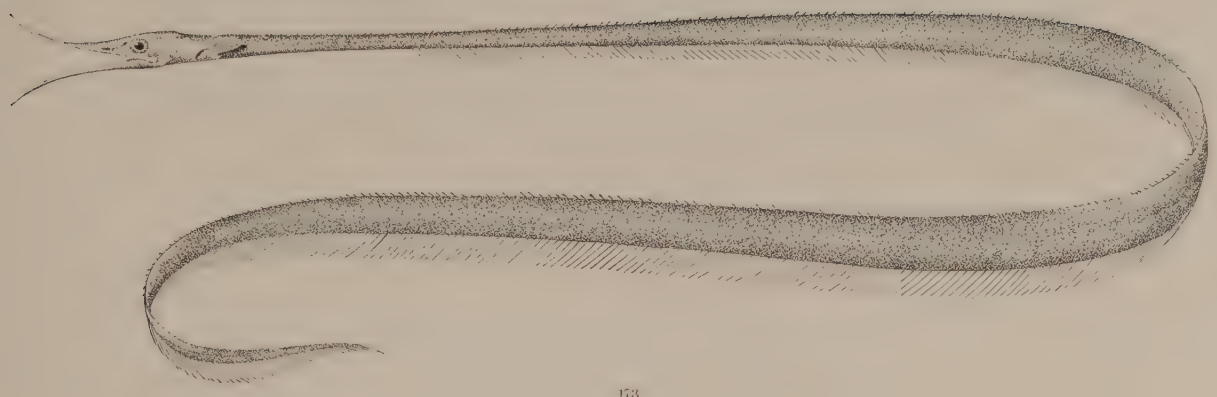


172

170. Nemichthys scolopaceus. (p. 152.) 171. Labichthys carinatus. (p. 153.)
172. Labichthys elongatus. (p. 153.)



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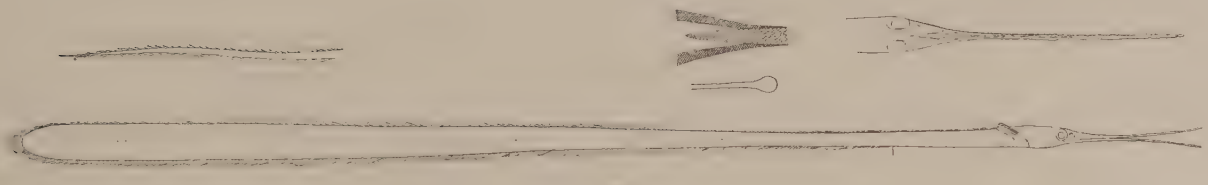

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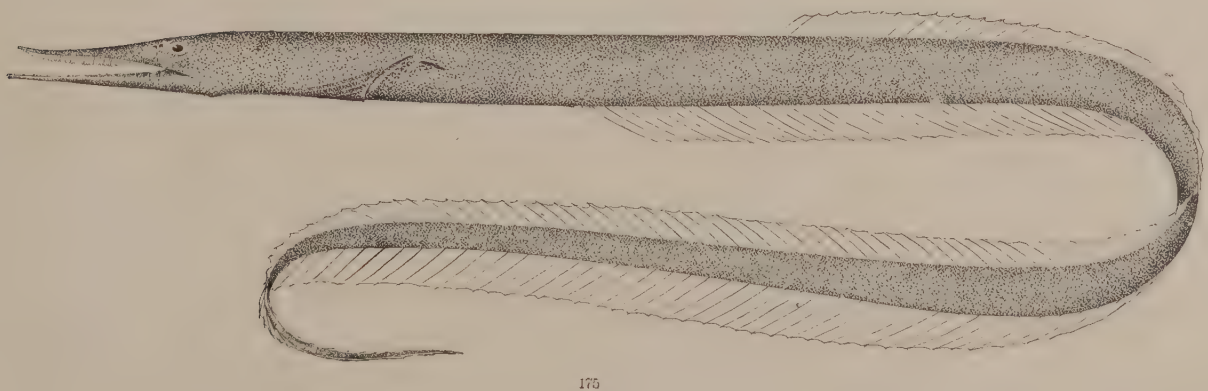
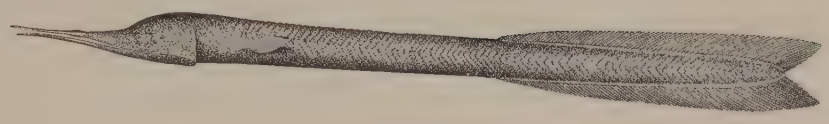


175

173. Labichthys infans. (p. 153.)

174. Labichthys infans (after Günther). (p. 153.)

175. Serrivomer Beanii. (p. 155.)



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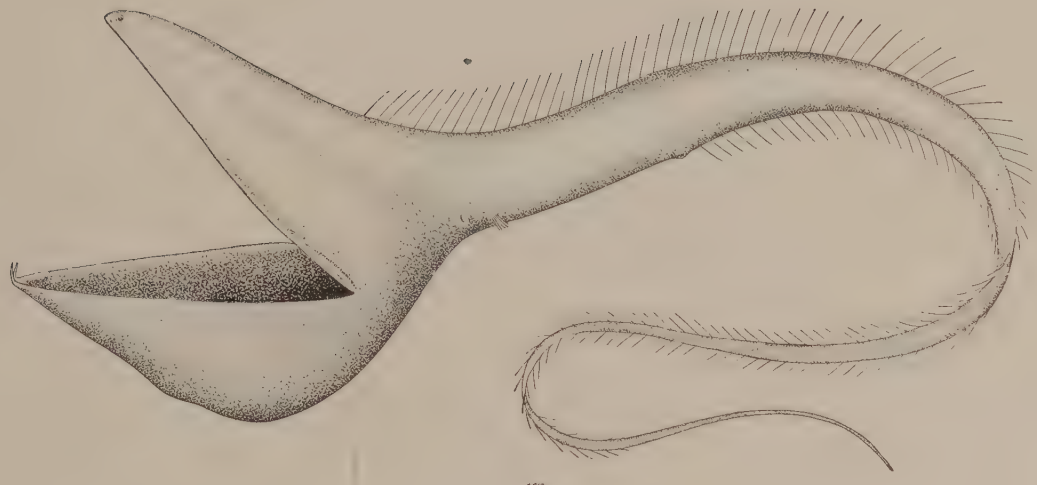

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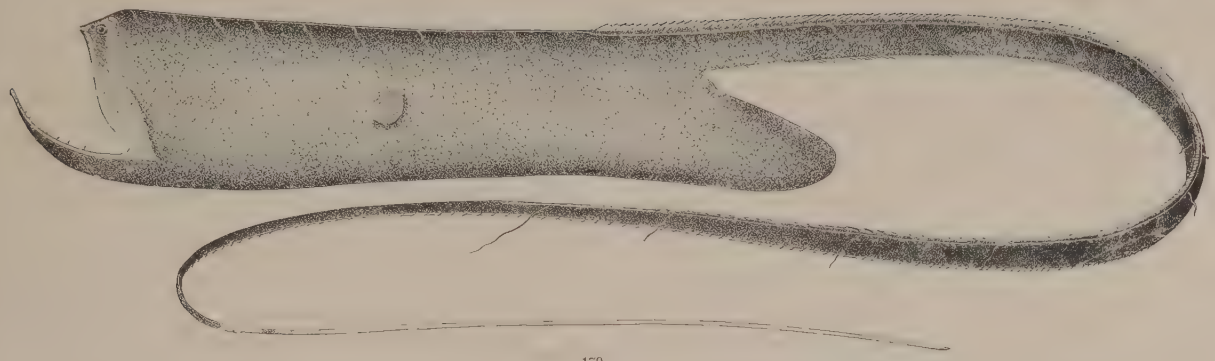
178

176. Cyema atrum. (p. 154.)

177. Eurypharynx pelecanoides. (p. 157.)

178. Saccopharynx flagellum. (p. 159.)



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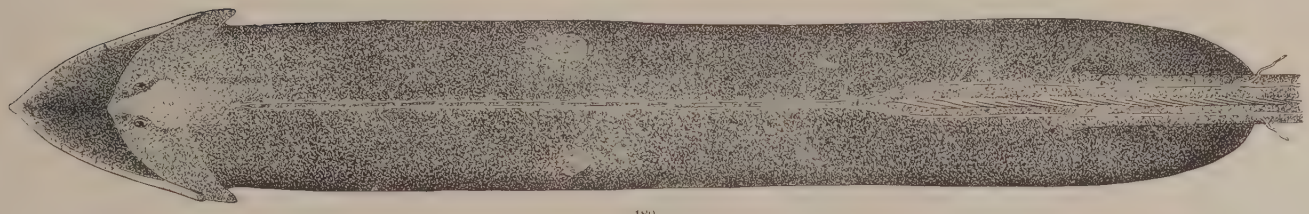

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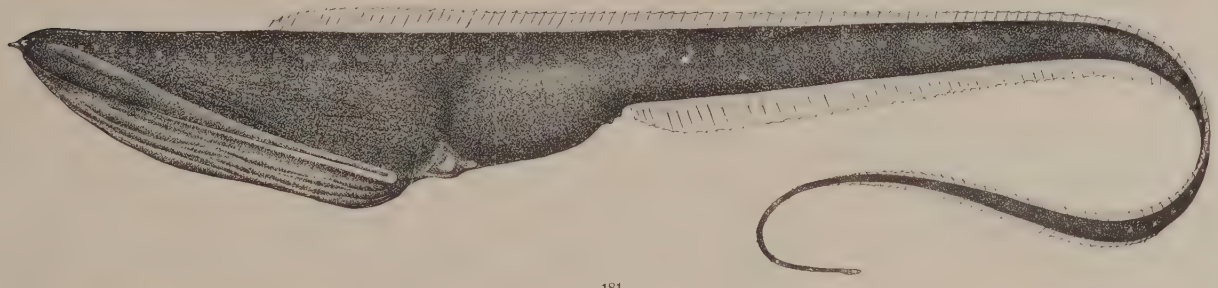

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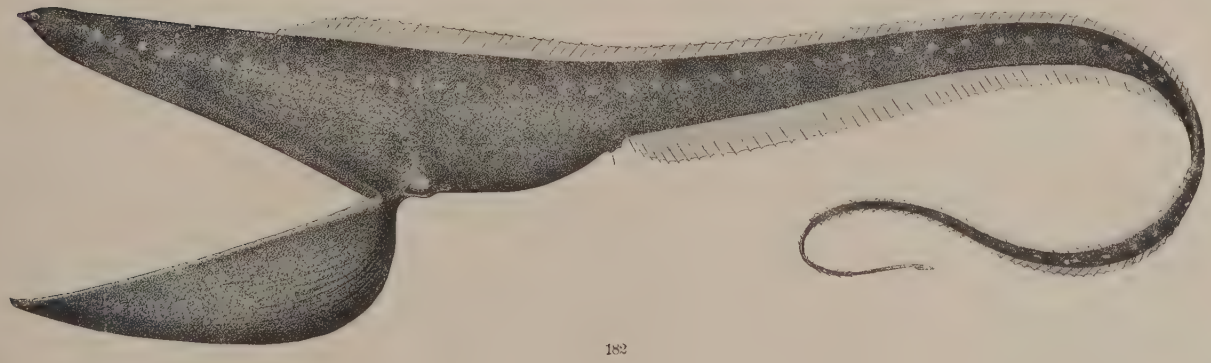
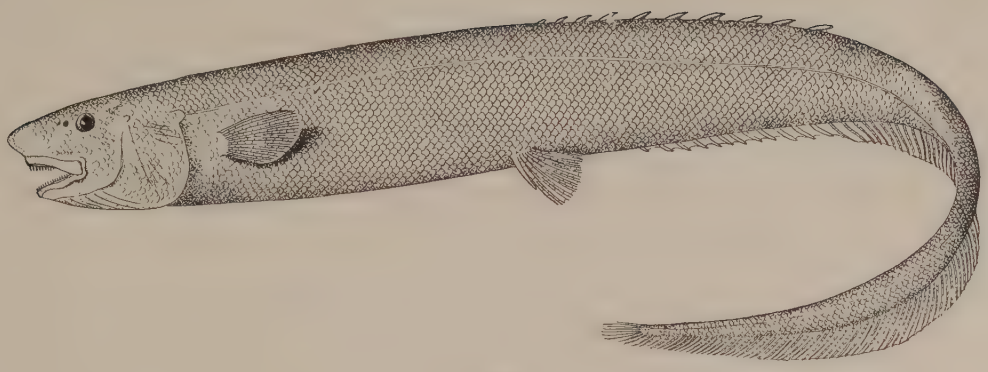


182

179, 180. Saccopharynx flagellum. (p. 157.)

181, 182. Gastrostomus Bairdii. (p. 159.)



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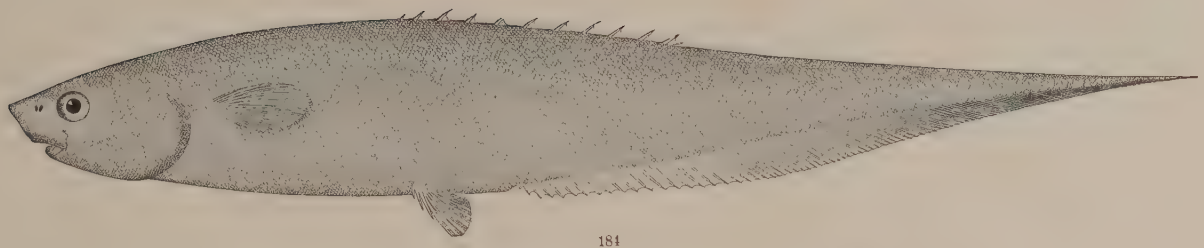

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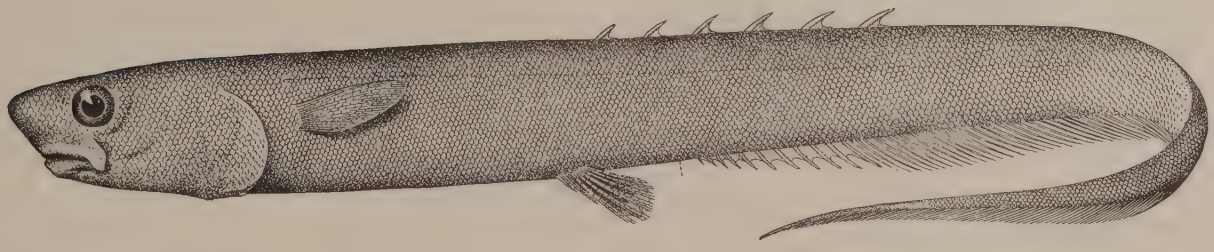

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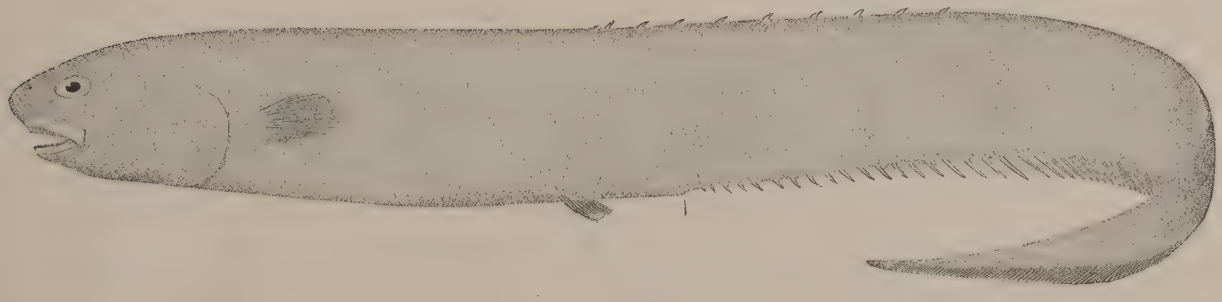
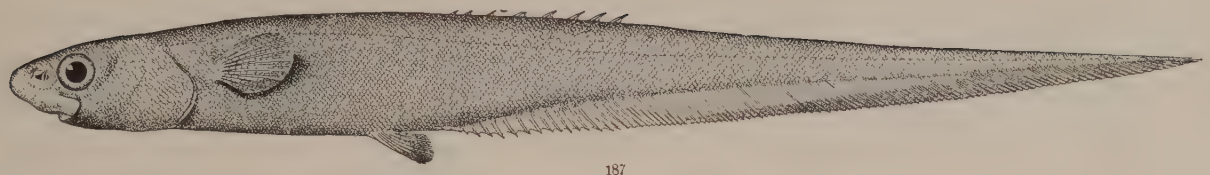


186

183. NOTACANTHUS NASUS. (p. 164.)
185. NOTACANTHUS BONAPARTII. (p. 166.)

184. NOTACANTHUS ANALIS. (p. 165.)
186. NOTACANTHUS PHASGANORUS. (p. 167.)



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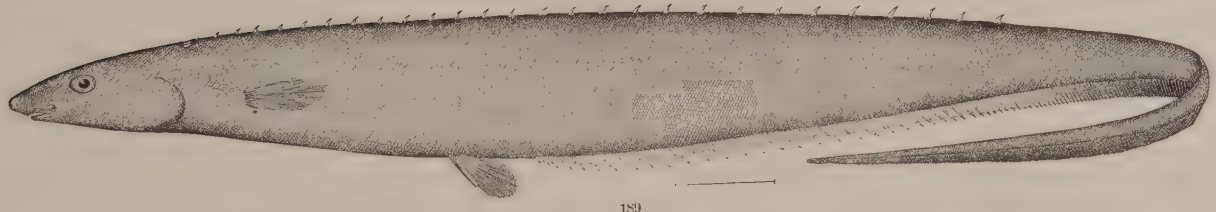

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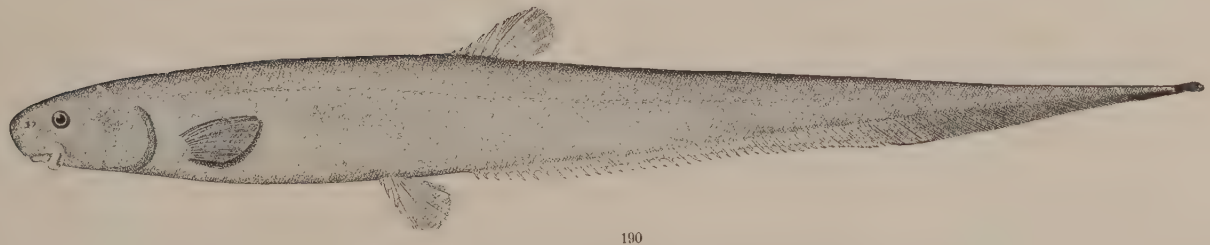


190

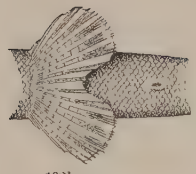
187. Gigliolia Moseleyi. (p. 169.)
189. Macdonaldia rostrata. (p. 171.)

188. Polyacanthonotus rissoanus. (p. 170.)
190. Lipogenys Gillii. (p. 173.)

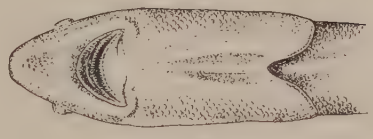
191*a*.

191*b*.

192*a*.



192*b*.



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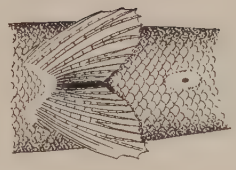
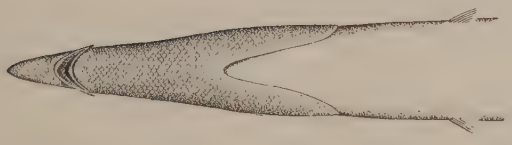
194*a*.



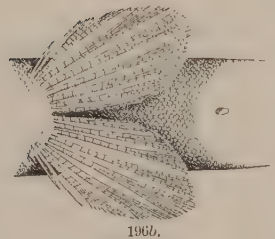
194*b*



195*a*.

195*b*.

196*a*.

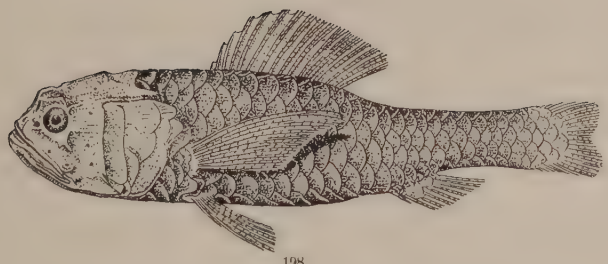


196*b*.

191*a*, *b*. NOTACANTHUS ANALIS. (p. 165.)
193. GIGLIOLIA MOSELEYI. (p. 169.)
195*a*, *b*. MACDONALDIA ROSTRATA. (p. 171)

192*a*, *b*. NOTACANTHUS SEXSPINIS. (p. 163.)
194*a*, *b*. POLYACANTHONOTUS RISSOANUS. (p. 170.)
196*a*, *b*. LIPOGENYS GILLII. (p. 173.)

197



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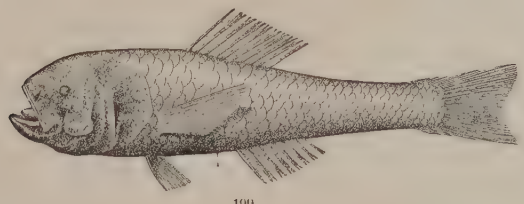

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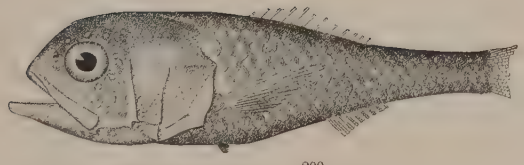

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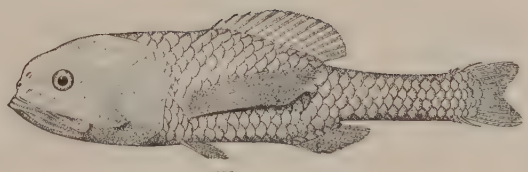
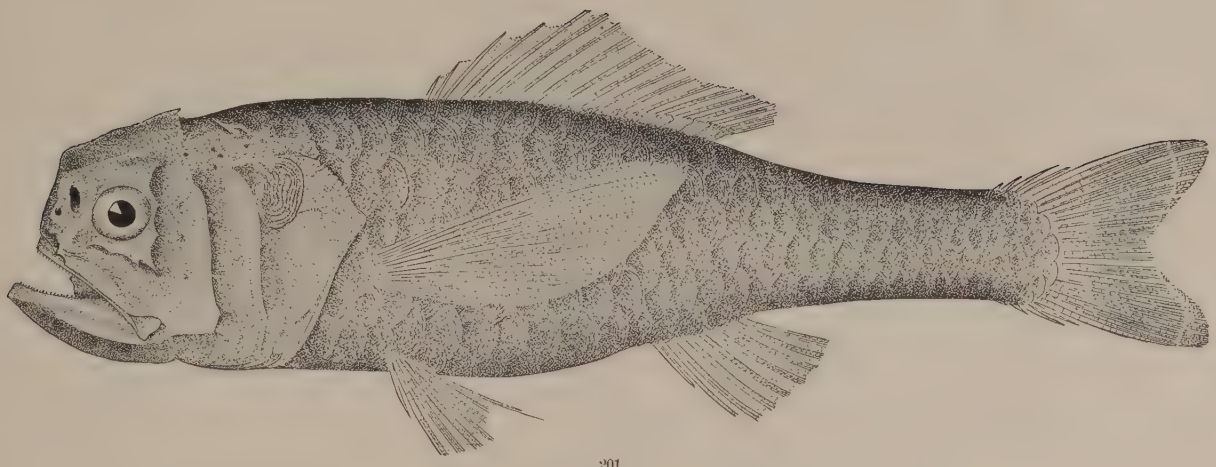


200*a*

197. Beryx splendens. (p. 176.)
198. Melamphæs typhlops. (p. 177.)
199. Scopelogadus cocles. (p. 182.)
200. Poromitra capito. (p. 183.)
200*a*. Plectromus crassiceps. (p. 180.)



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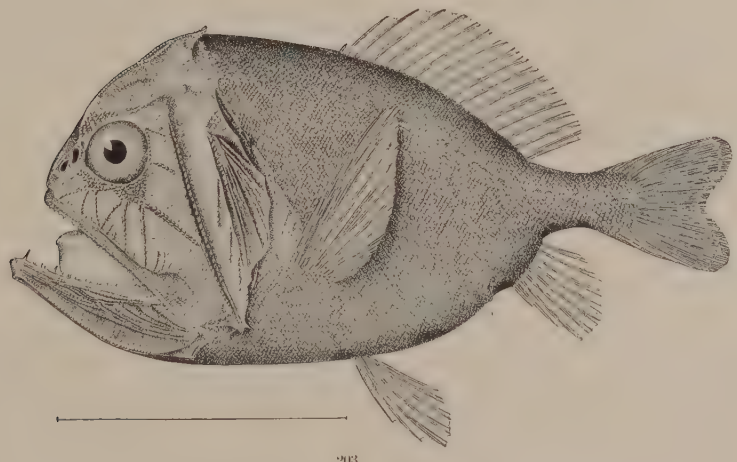
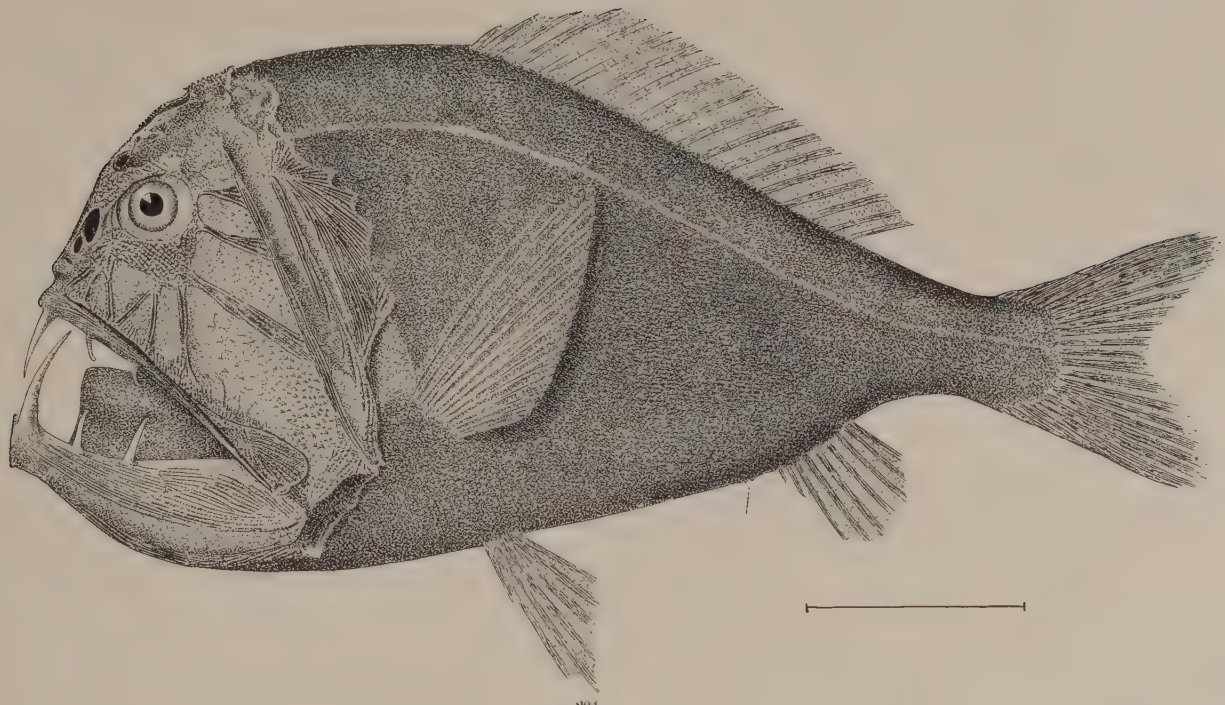


203

201. Plectromus suborbitalis. (p. 179.) 202. Plectromus Beanii. (p. 179.)
203. Anoplogaster cornutus. (p. 184.)



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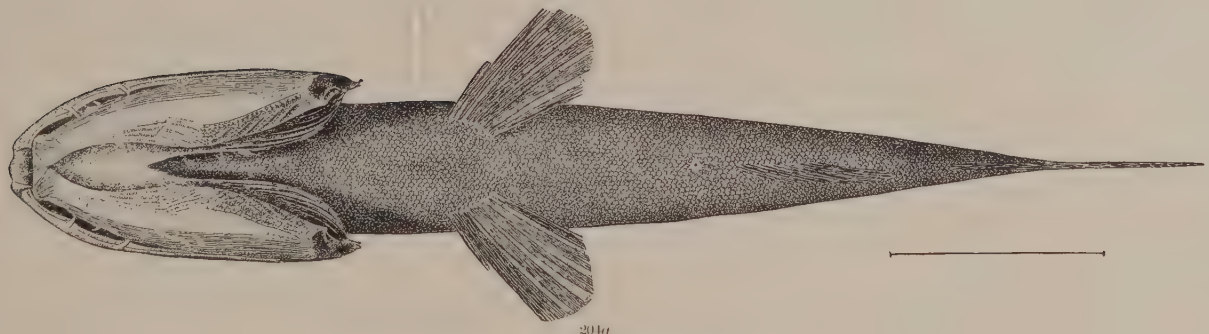
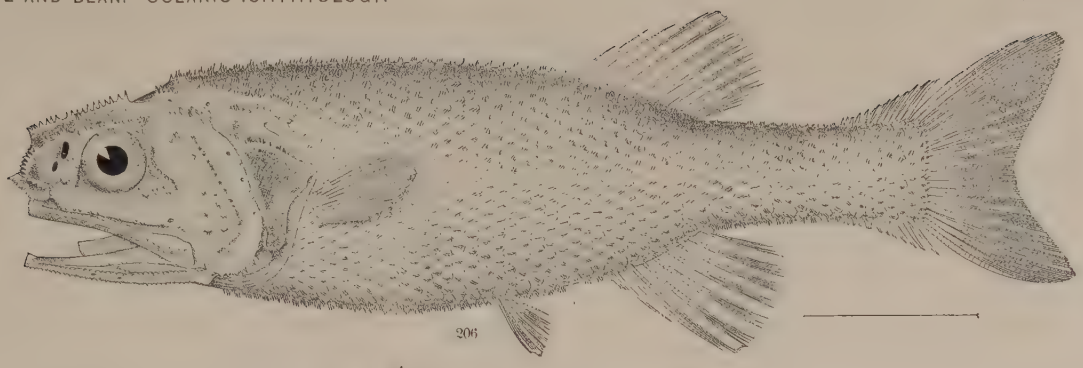


204*a*

205

204, 204*a*. CAULOLEPIS LONGIDENS. (p. 185.)

205. STEPHANOBERYX MONÆ. (p. 186.)



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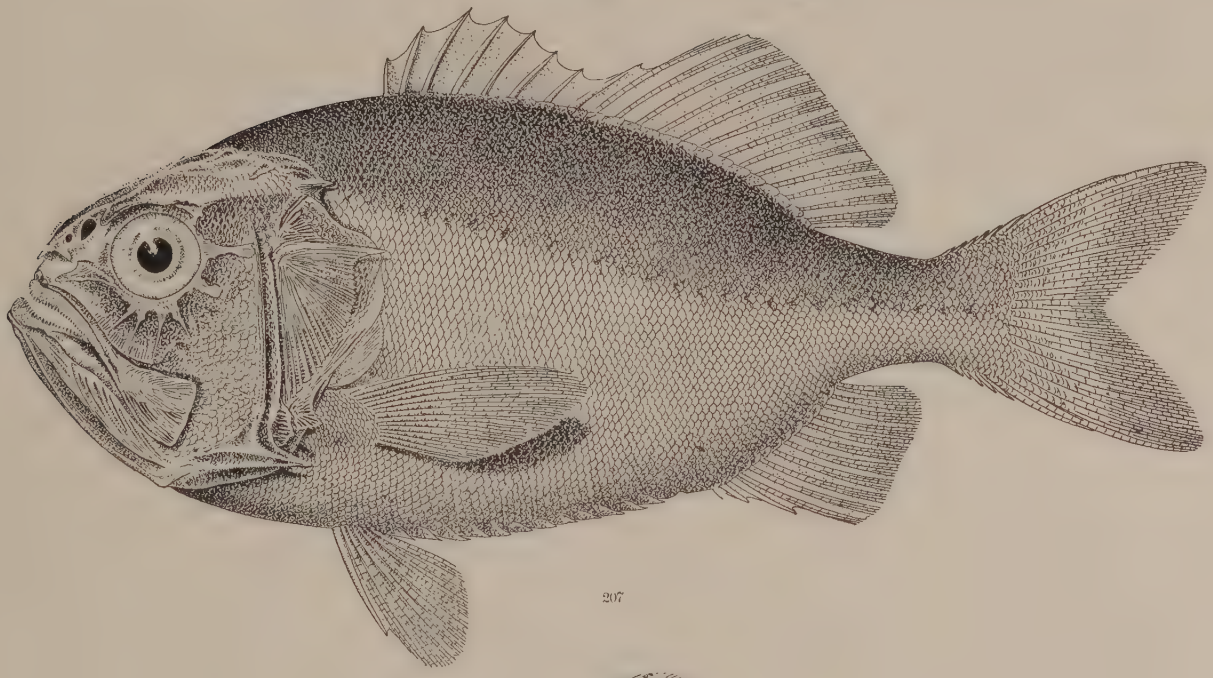

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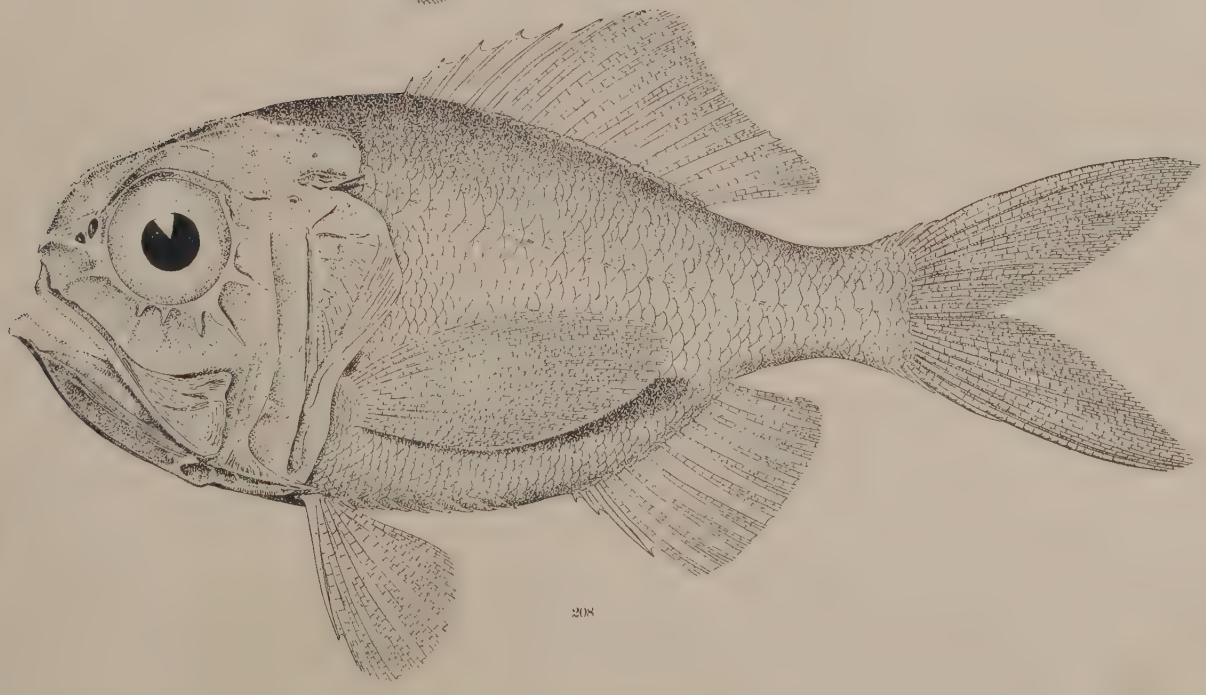
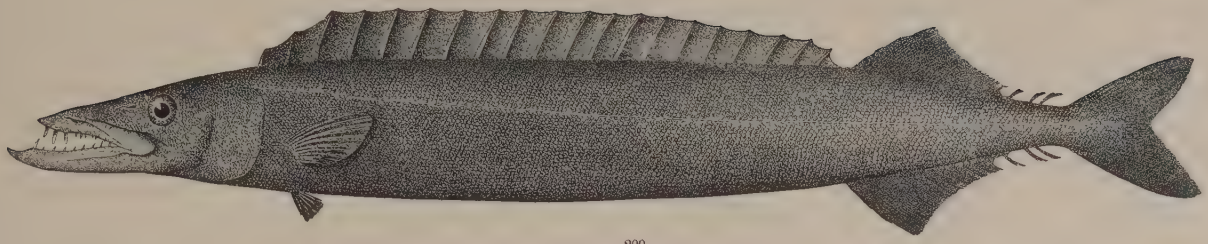


208

206. Stephanoberyx Gillii. (p. 187.) 207. Trachichthys Darwinii. (p. 188.)
208. Hoplostethus mediterraneus. (p. 189.)



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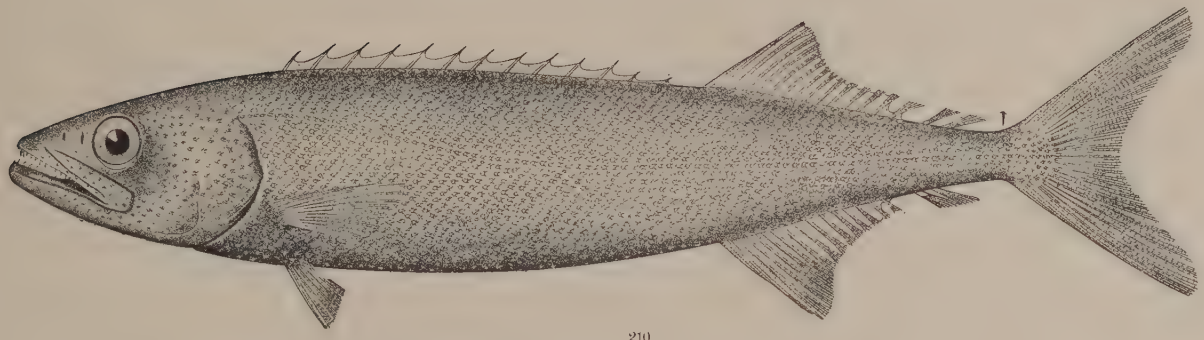


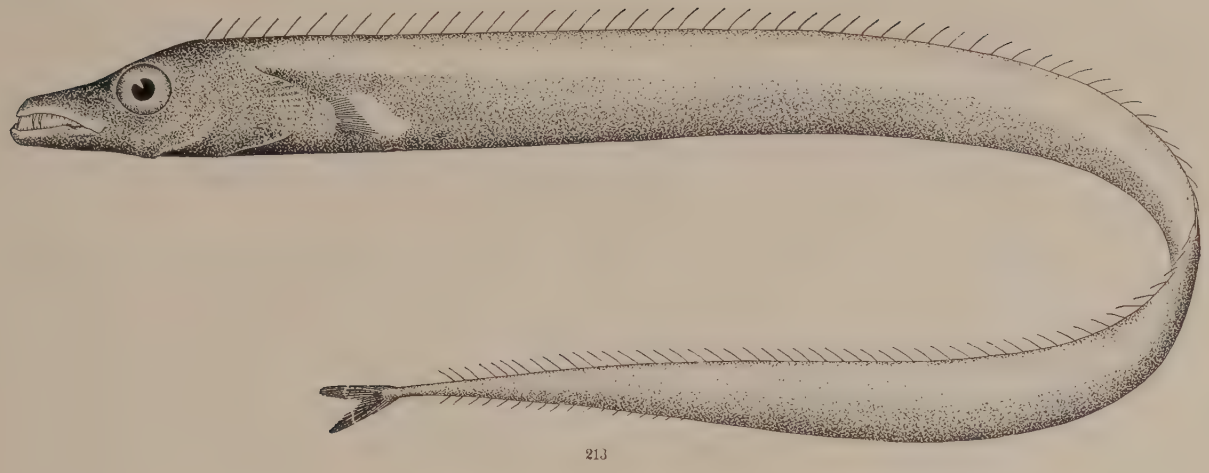
210

211

212

209. Thyrsitops violaceus. (p. 195.)
211. Epinnula magistralis. (p. 198.)

210. Ruvettus pretiosus. (p. 196.)
212. Dicrotus parvipinnis. (p. 201.)



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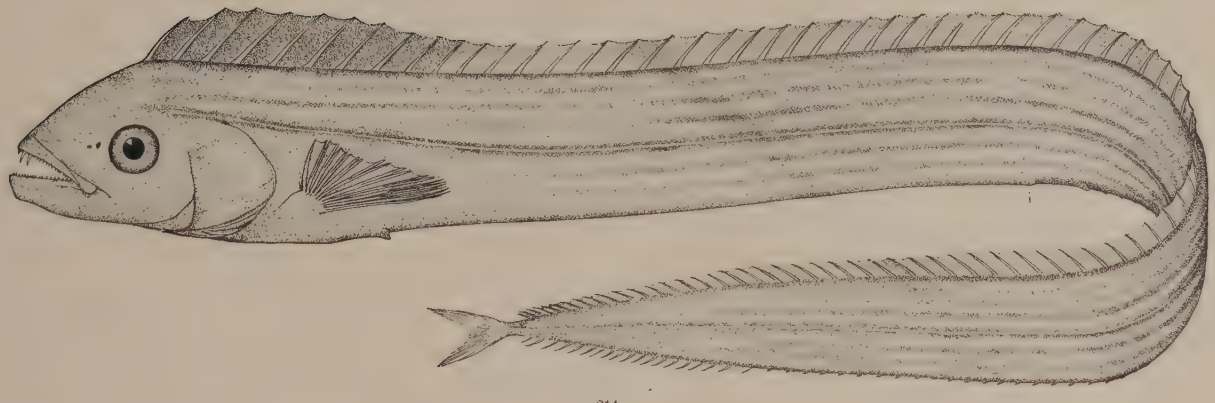

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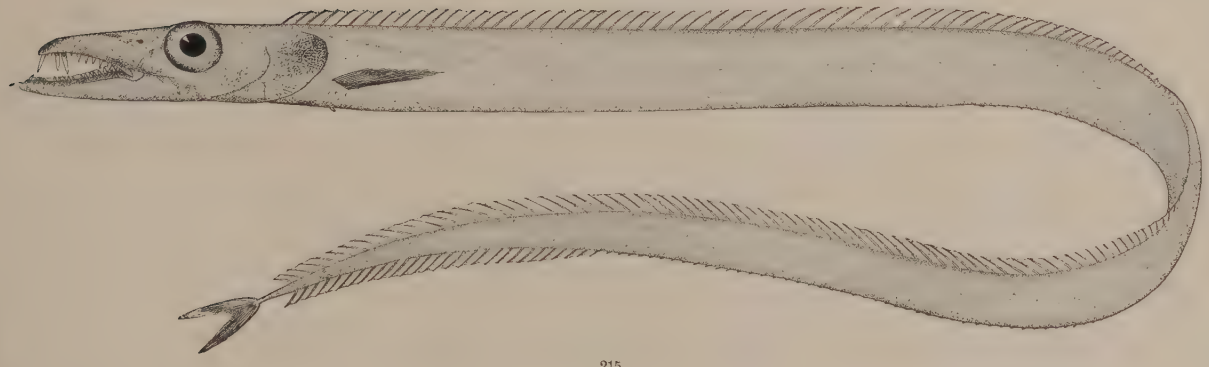
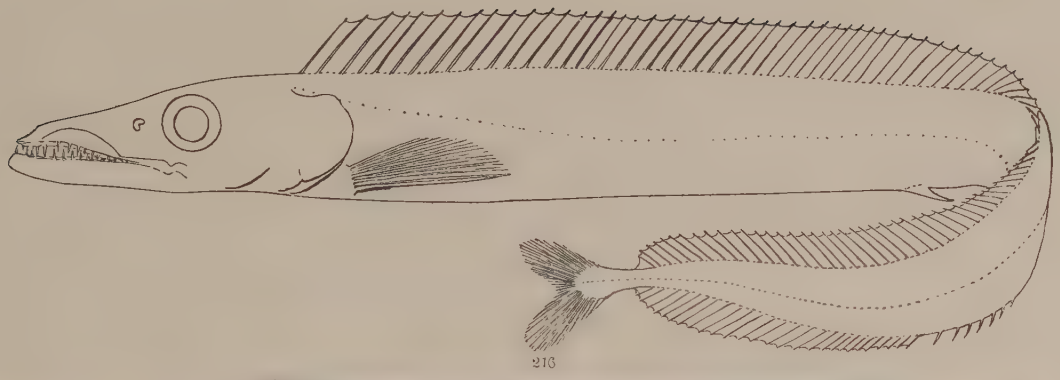


215

213. Lepidopus caudatus. (p. 203.) 214. Evoxymetopon tæniatus. (p. 204.)
215. Benthodesmus atlanticus. (p. 205.)



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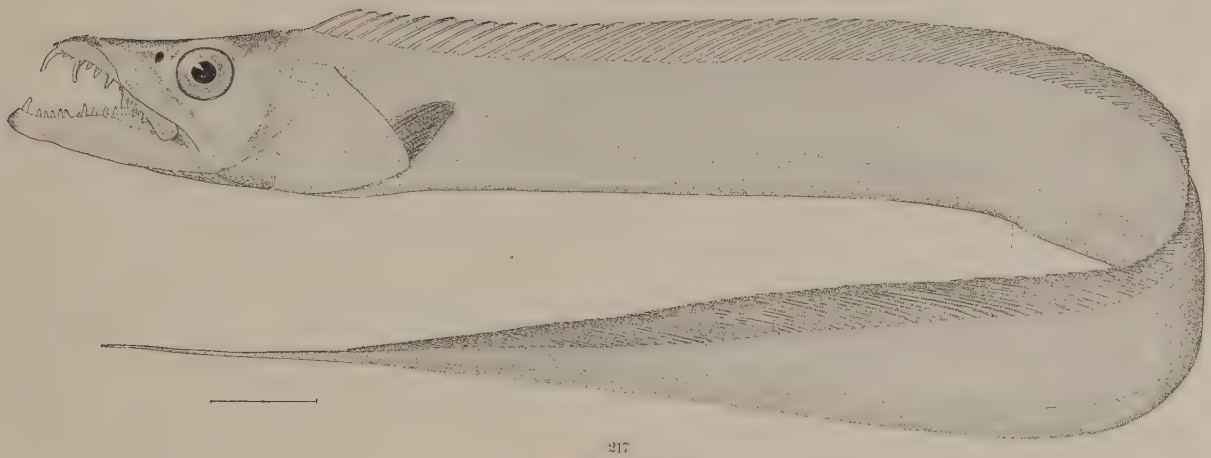


217

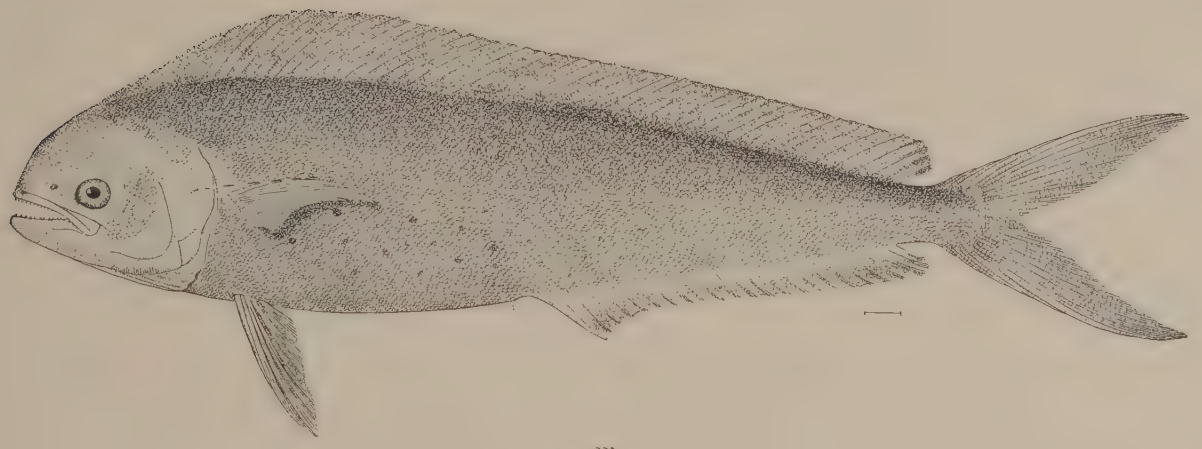
218

216. Aphanopus carbo. (p. 207.)

217. Trichiurus lepturus. (p. 208.)

218. Pteraclis carolinus. (p. 212.)

219



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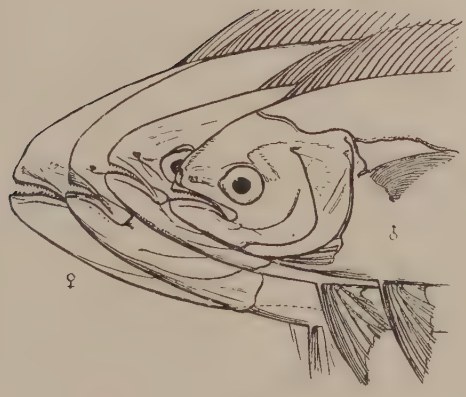


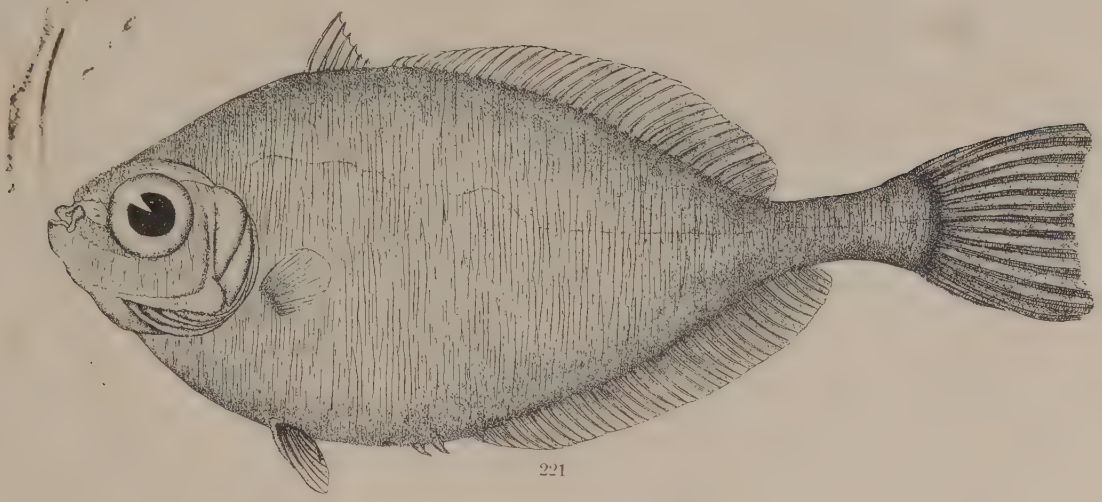
220a

220b

219. CORYPHÆNA HIPPURUS (old male). (p. 209.)

220. CORYPHÆNA HIPPURUS (young). (p. 209.)

220*a*, *b*. CORYPHÆNA HIPPURUS. (p. 209.)



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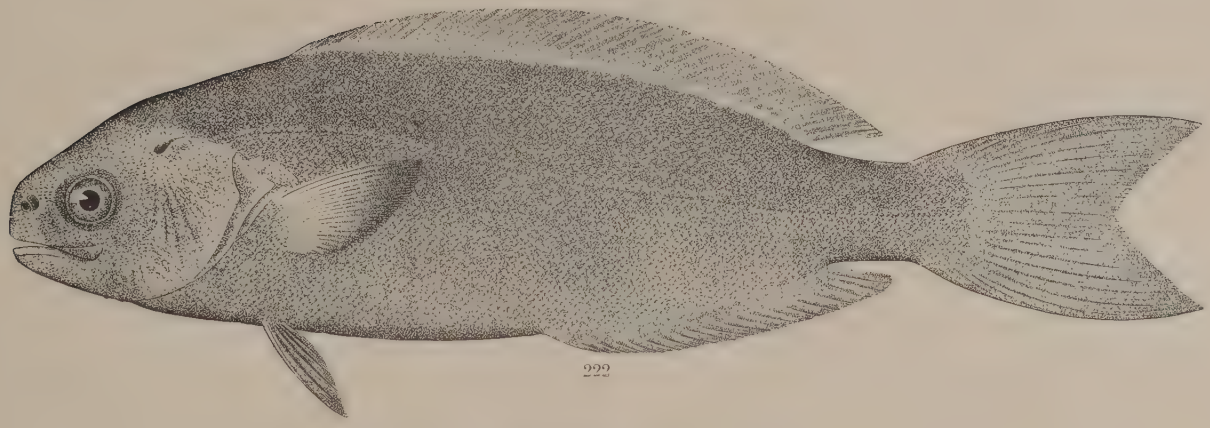
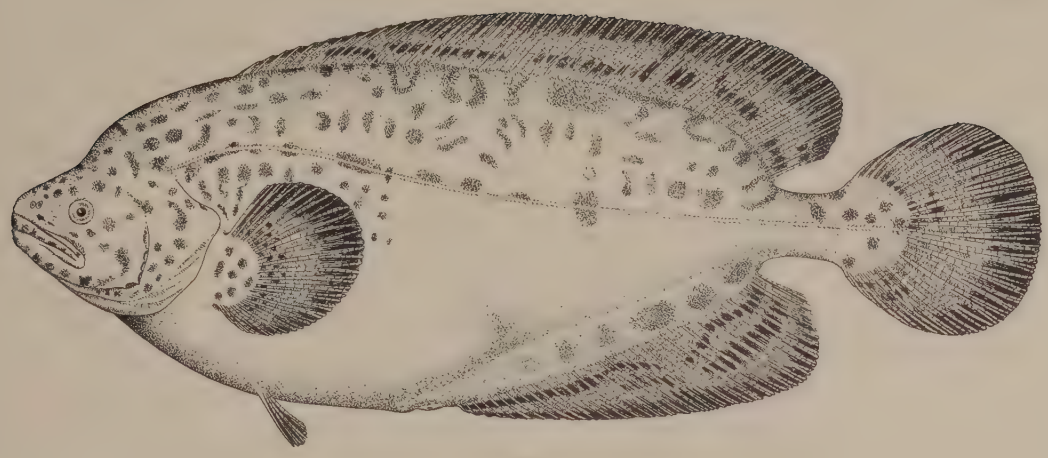


222

223

221. Grammicolepis brachiusculus. (p. 218.) 222. Centrolophus pompilus. (p. 214.)
223. Schedophilus medusophagus. (p. 214.)



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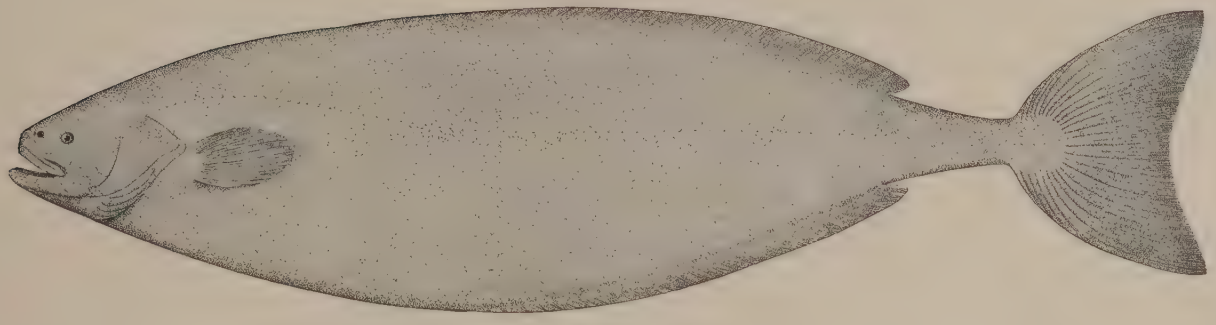

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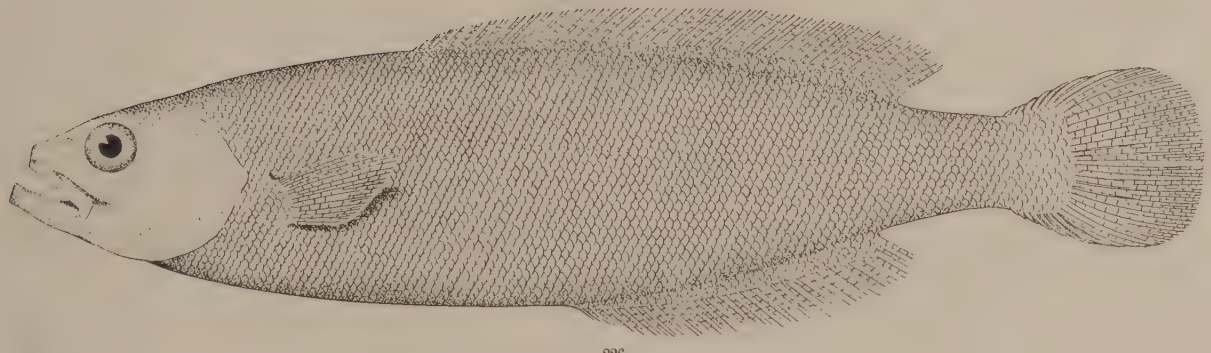
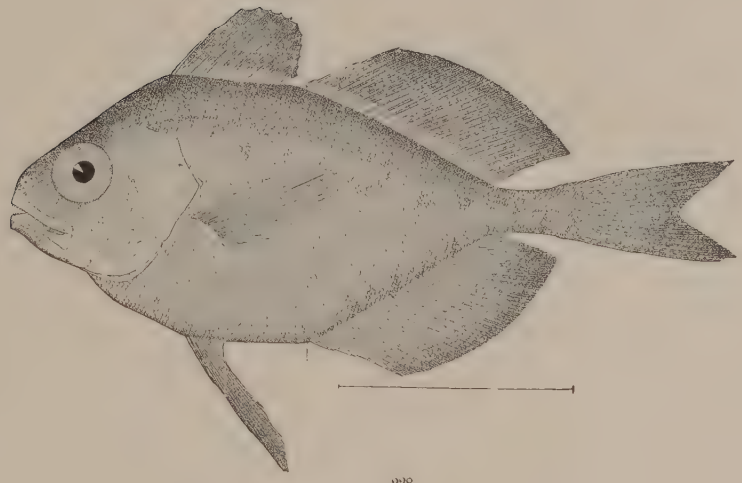


226

224. Icosteus enigmaticus. (p. 215.)
225. Acrotus Willoughbyi. (p. 217.)
226. Icichthys Lockingtonii. (p. 216.)

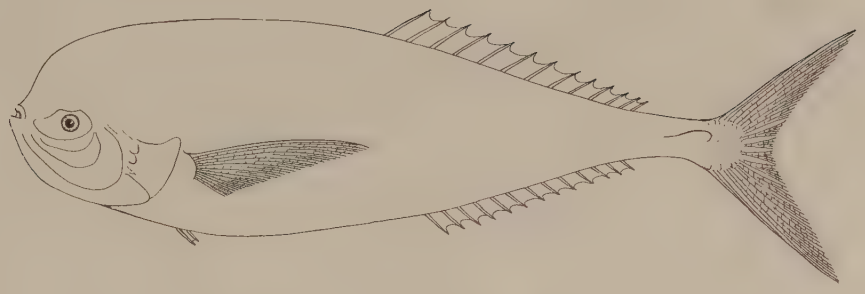
227



228

229

227. NOMEUS GRONOVII. (p. 220.)
228. PSENES PELLUCIDUS. (p. 221.)
229. PSENES MACULATUS. (p. 221.)



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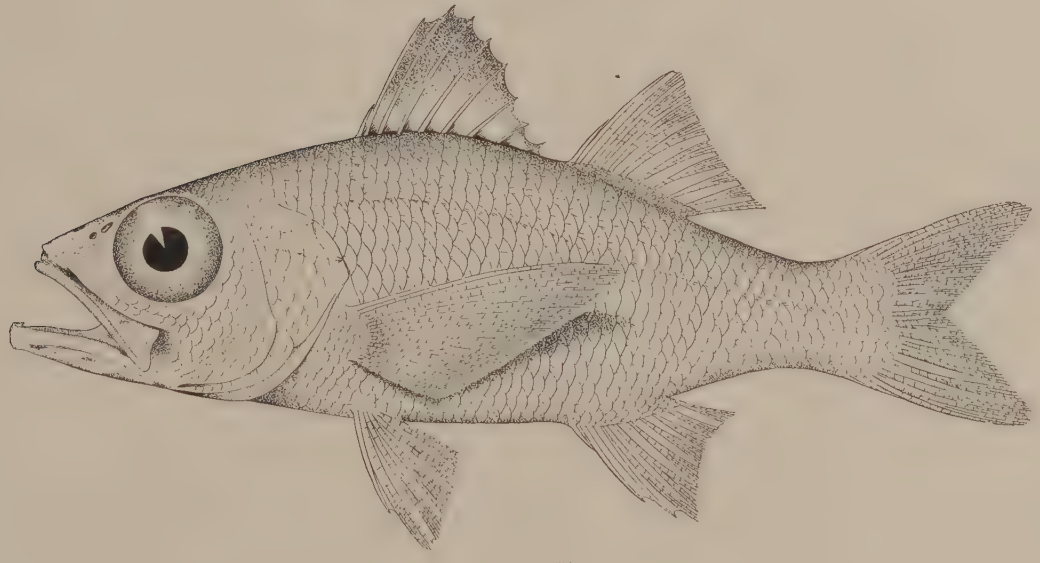


232

230. Luvarus imperialis. (p. 222.)
231. Glossamia pandionis. (p. 231.)
232. Verilus sordidus. (p. 240.)

234

235

233

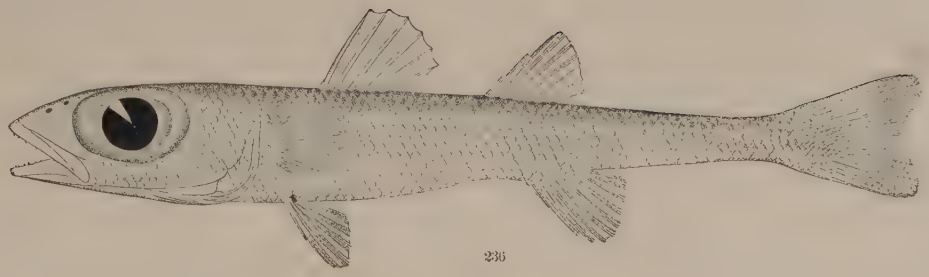
233a

233b

233, 233*a*, *b*. CYTTUS HOLOLEPIS. (p. 225.)

234. DIRETMUS ARGENTEUS. (p. 211.)

235. ANTIGONIA CAPROS. (p. 229.)



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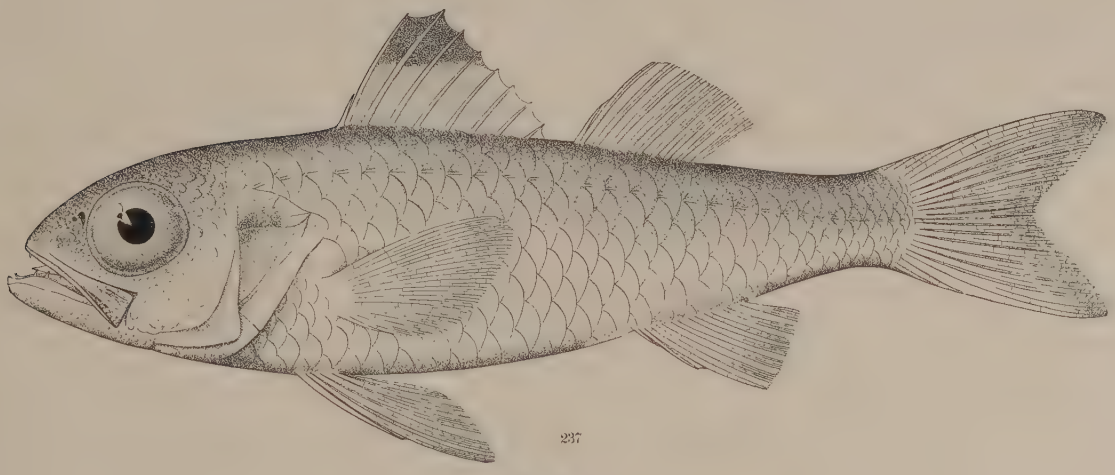

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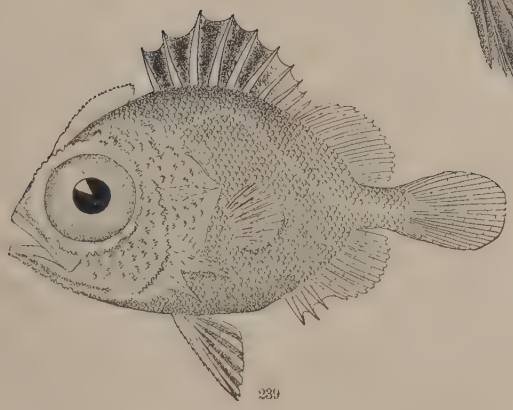

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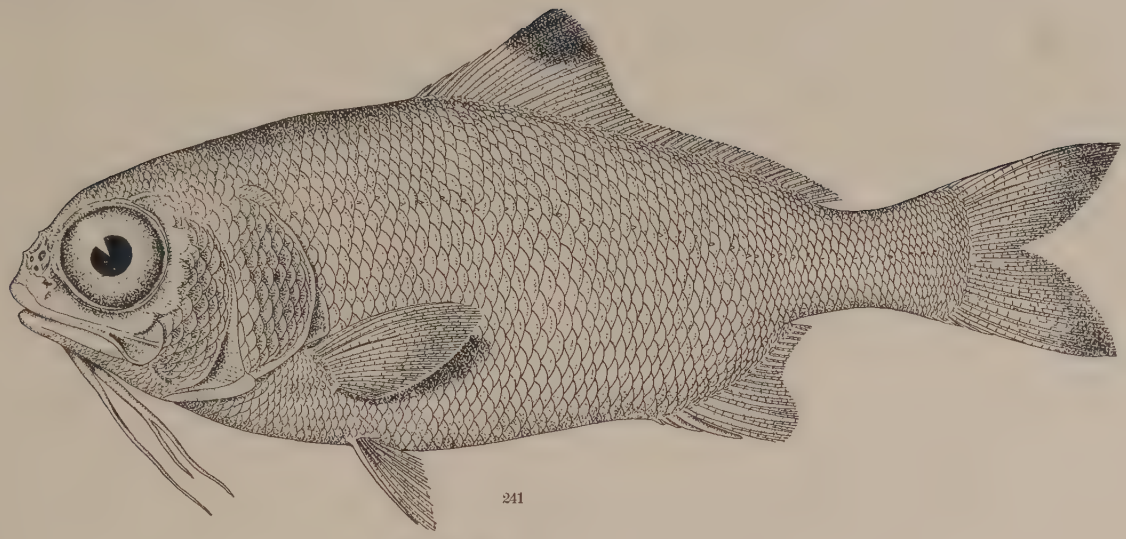
236. Epigonus occidentalis. (p. 233.)
238. Polyprion americanum. (p. 238.)

237. Hypoclydonia bella. (p. 236.)
239, 240. Pseudopriacanthus altus. (p. 242.)



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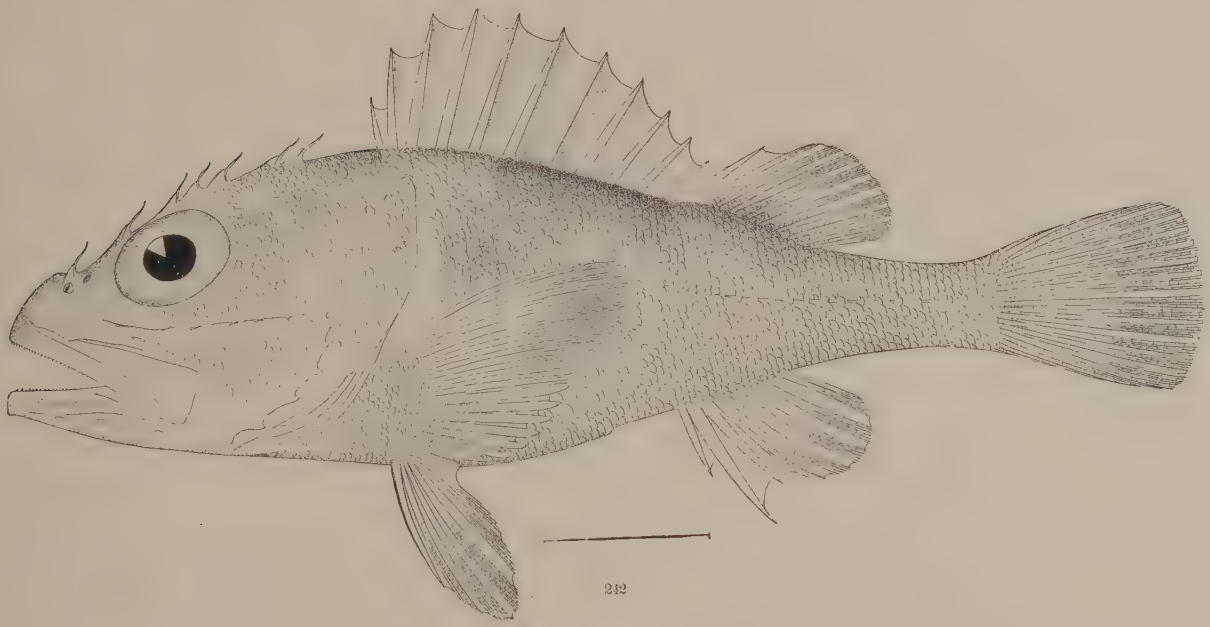

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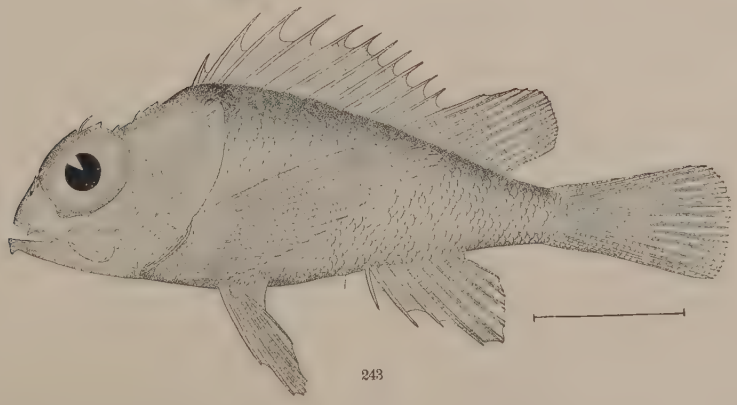
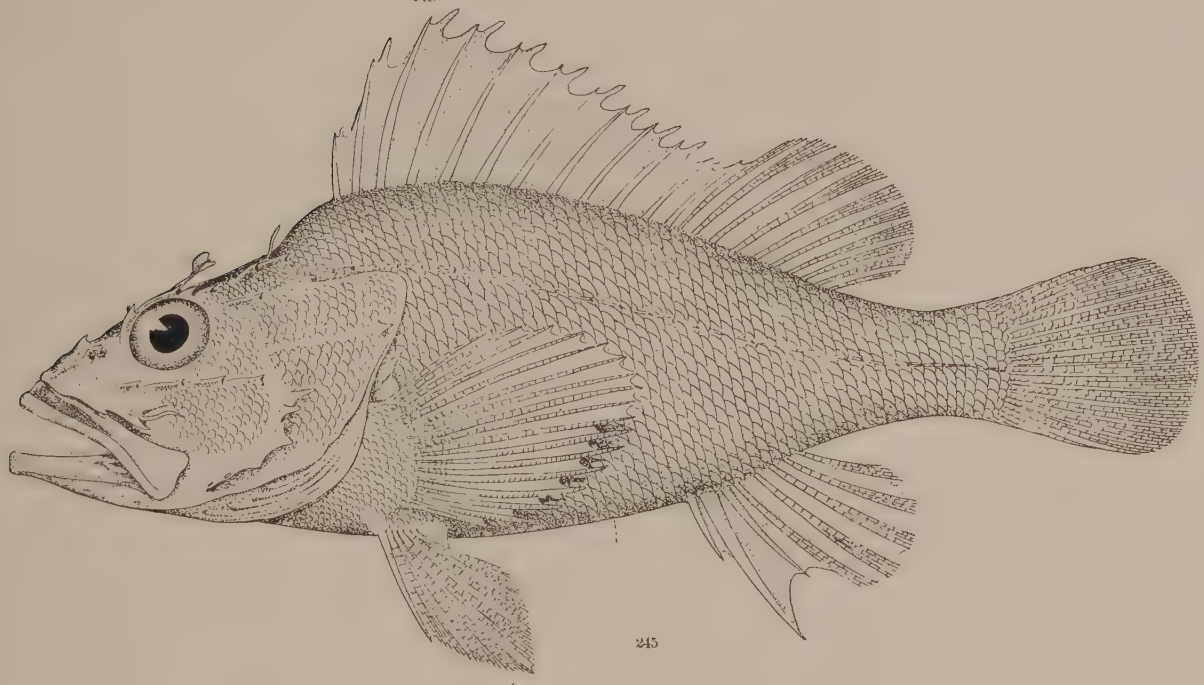


243

241. Polymixia nobilis. (p. 243.)
242. Scorpæna cristulata. (p. 246.)
243. Scorpæna Agassizii. (p. 247.)

244



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246

244. HELICOLENUS DACTYLOPTERUS. (p. 250.)
245. PONTINUS RATHBUNI. (p. 255.)
246. PONTINUS LONGISPINIS. (p. 258.)

247

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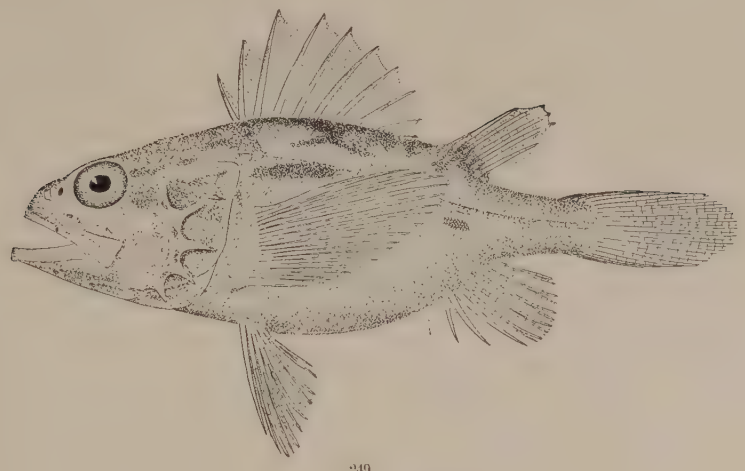
247. PONTINUS MACROLEPIS. (p. 257.)

248. SEBASTES MARINUS. (p. 260.)



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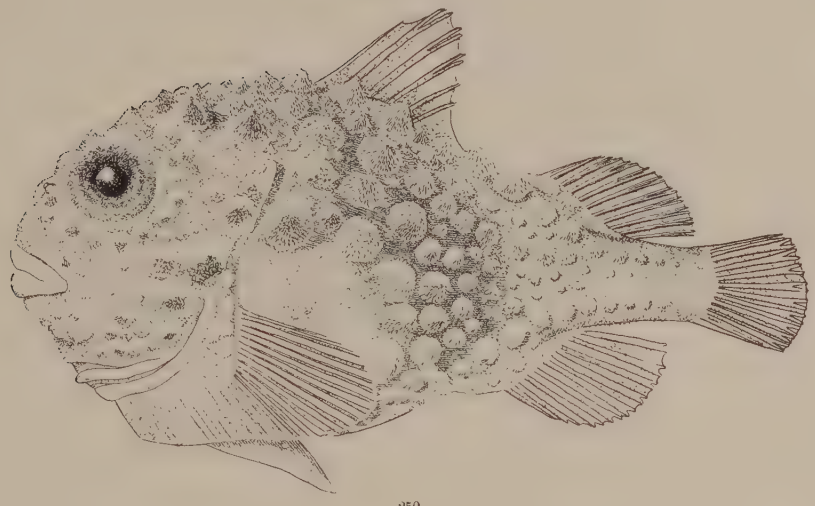

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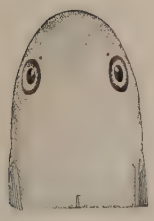
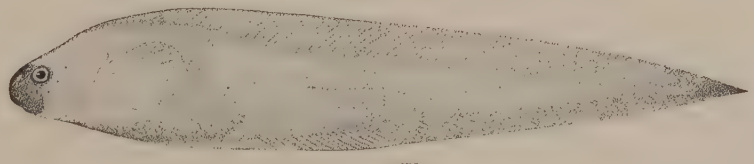


251a

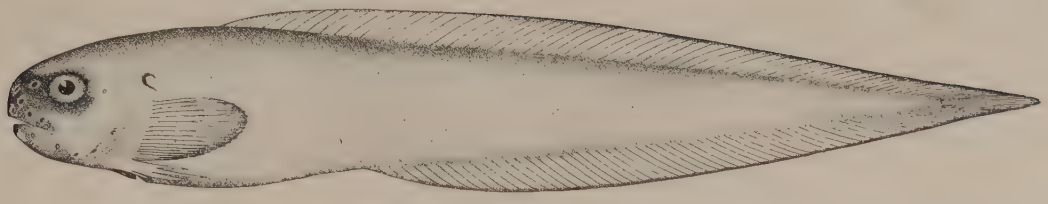
251

251b



252

249. Setarches parmatus. (p. 264.)
251, 251*a*, *b*. Careproctus ranula. (p. 275.)
250. Eumicrotremus spinosus. (p. 272.)
252. Monomitra liparina. (p. 278.)



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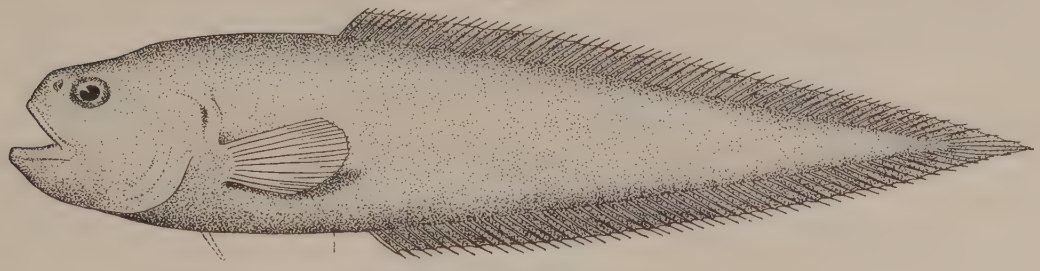
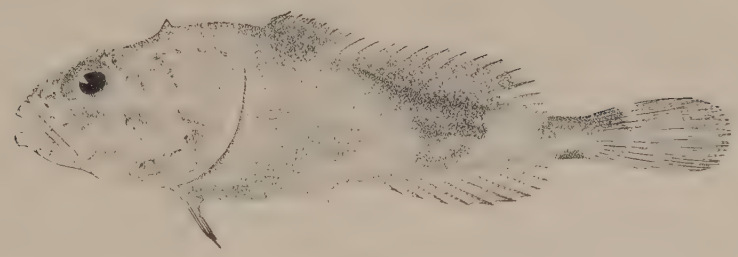


254

255

256

253. Paraliparis Copei. (p. 279.)
255. Artediellus uncinatus. (p. 267.)
254. Gymnolycodes Edwardsi. (p. 281.)
256. Triglops pingelii. (p. 269.)



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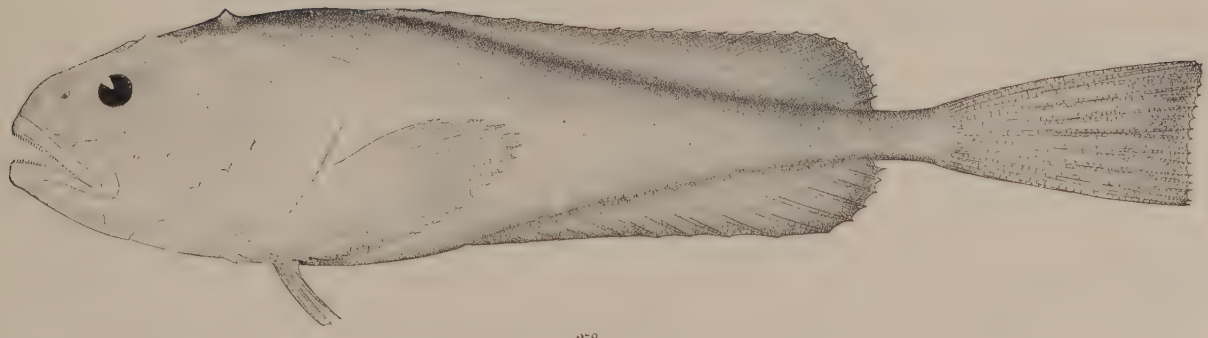
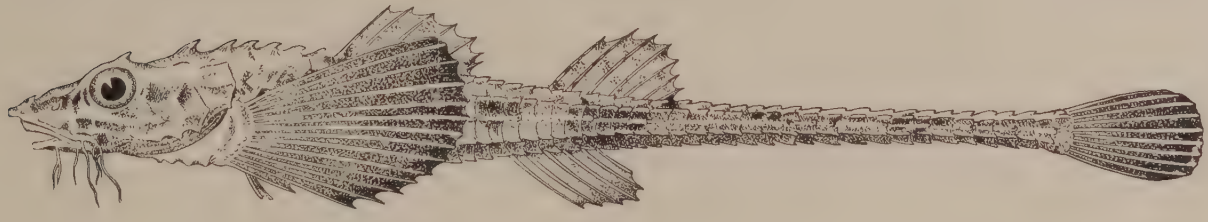


258



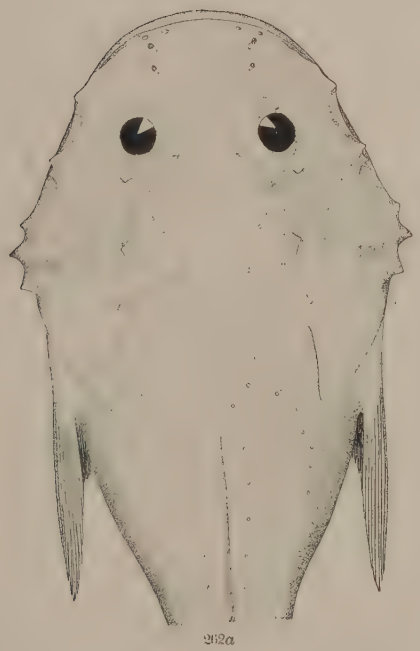
259

260

257. Cottunculus microps. (p. 269.)
258. Cottunculus Thomsonii. (p. 270.)
259. Podothecus decagonus. (p. 282.)
260. Aspidophoroides monopterygius. (p. 283.)

261*a*

261*b*

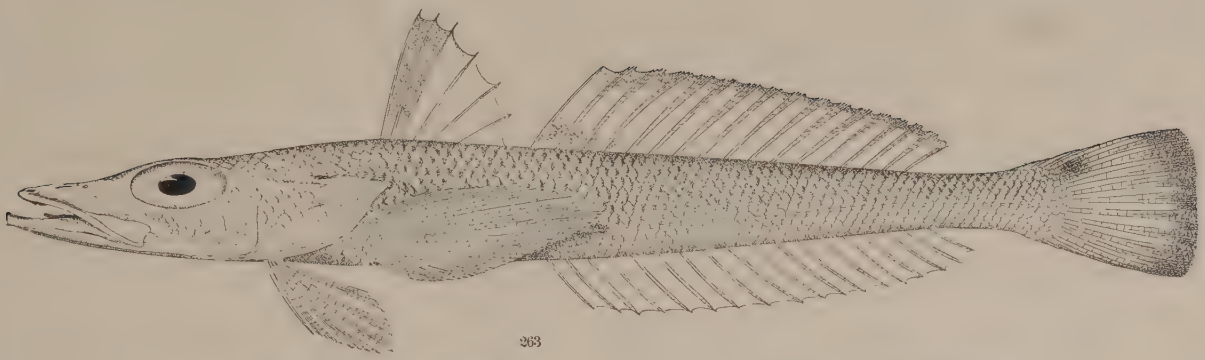


262*a*

262*b*

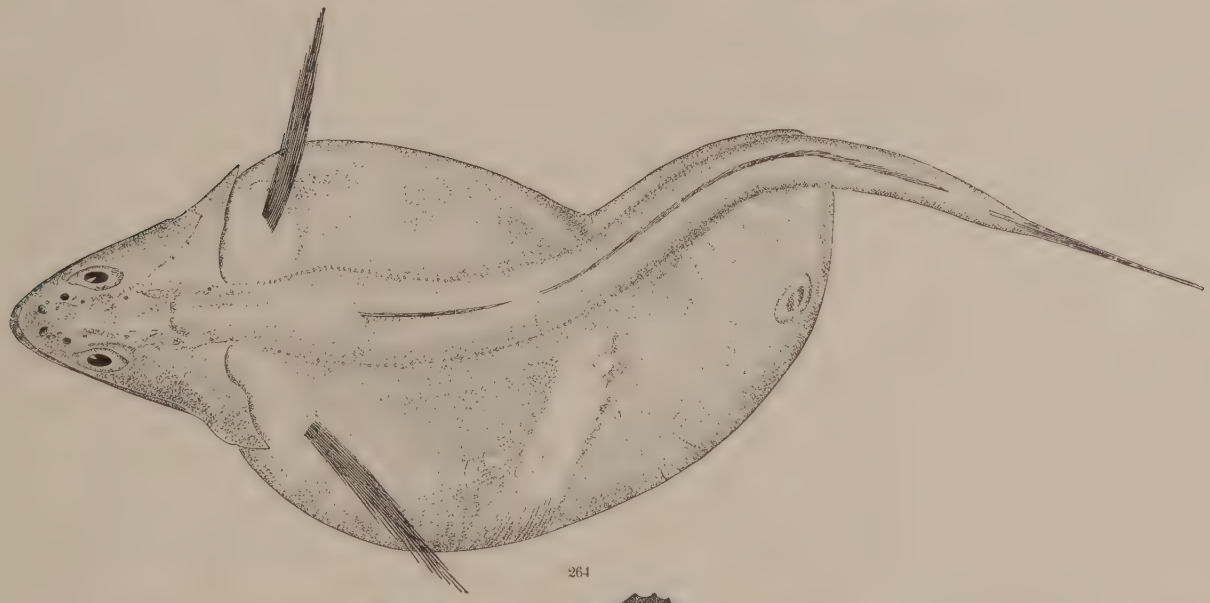
261*a*, *b*. COTTUNCULUS MICROPS. (p. 269.)

262*a*, *b*. COTTUNCULUS THOMSONII. (p. 270.)

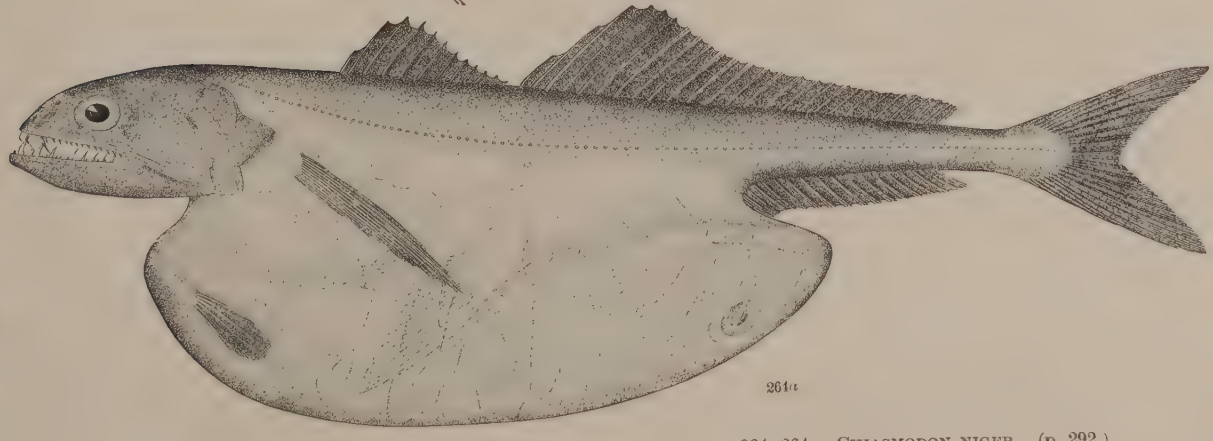


263

263*a*



264

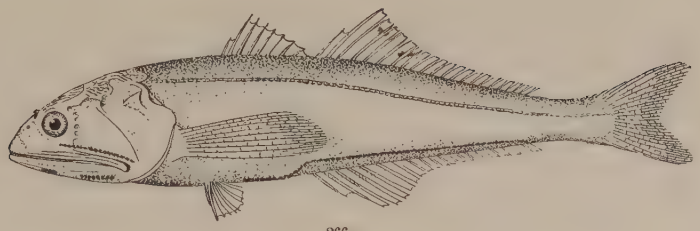


264*a*

263, 263*a*, *b*. HYPSICOMETES GOBIOIDES. (p. 290.)

264, 264*a*. CHIASMODON NIGER. (p. 292.)

265. LOPHOLATILUS CHAMÆLEONTICEPS. (p. 284.)



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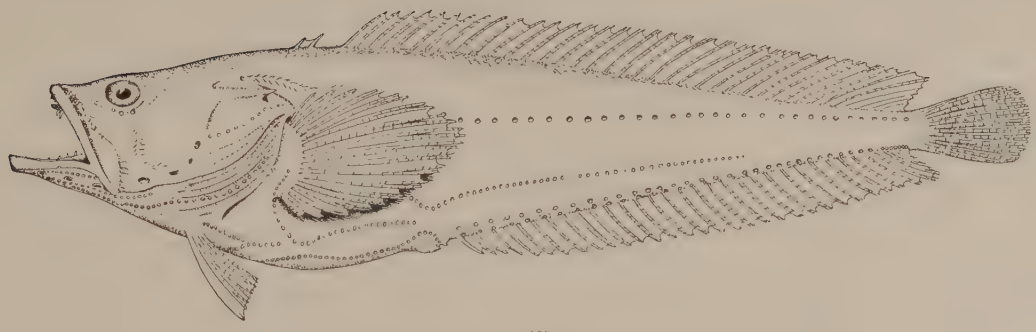
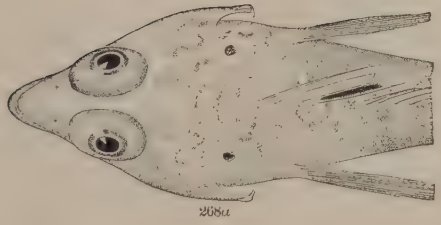
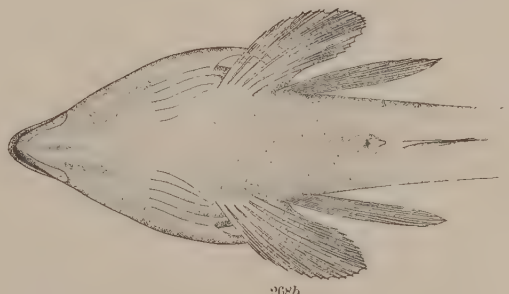


267

268



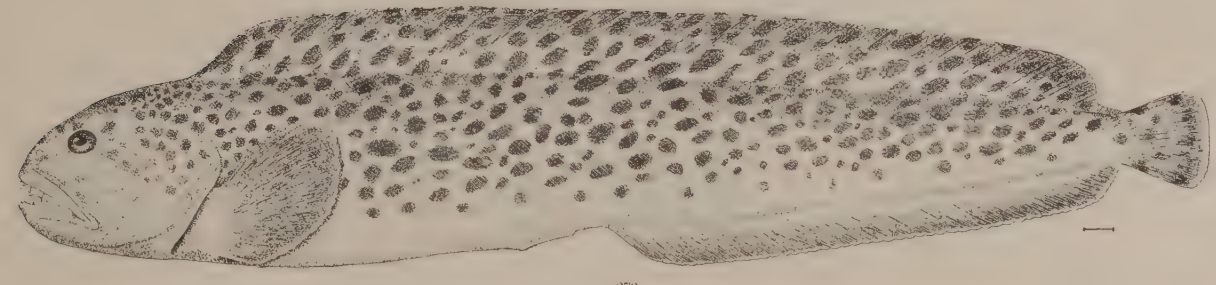
268*a*



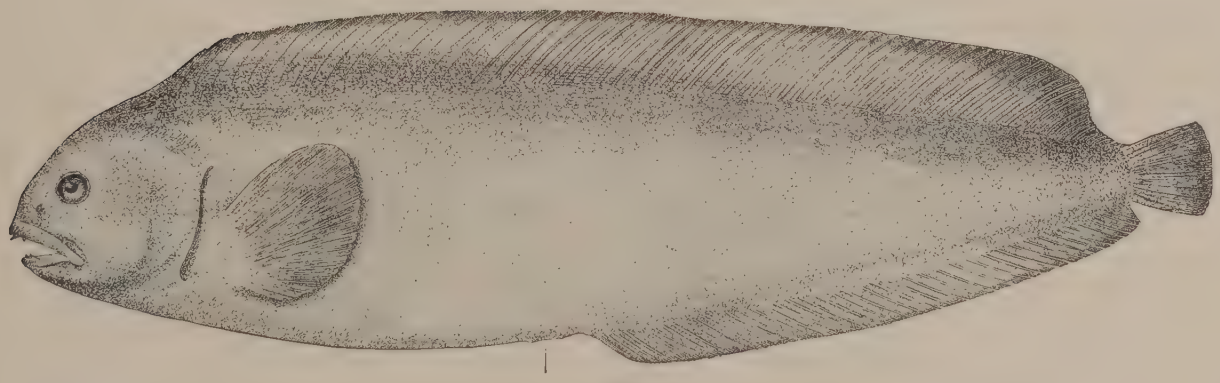
268*b*

266. Pseudoscopelus scriptus. (p. 292.) 267. Porichthys porosissimus. (p. 294.)
268, 268*a*, *b*. Callionymus himantophorus. (p. 296.)

269

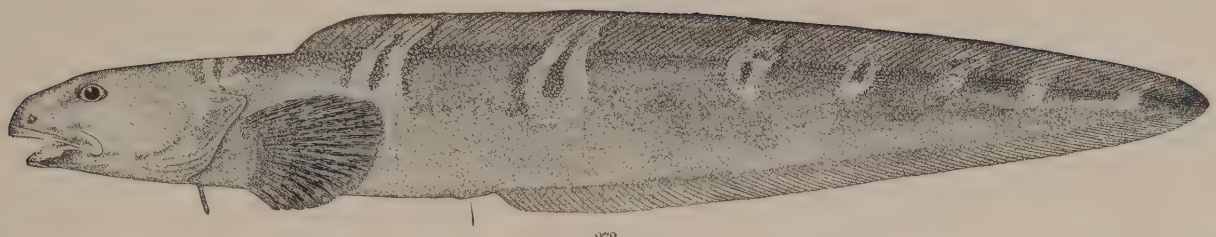


270



271

269. ANARRHICHAS LUPUS. (p. 299.) 270. ANARRHICHAS MINOR. (p. 301.)
271. ANARRHICHAS LATIFRONS. (p. 301.)



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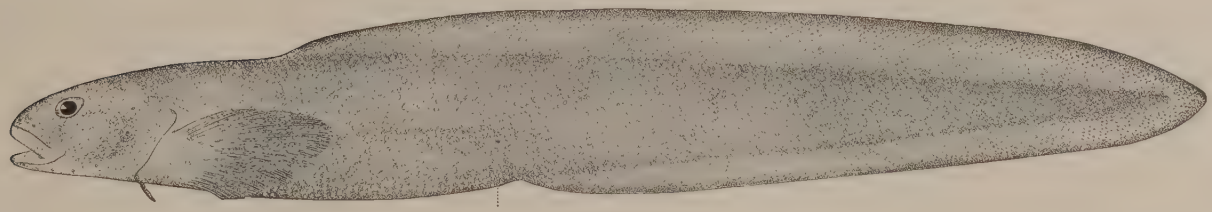
273



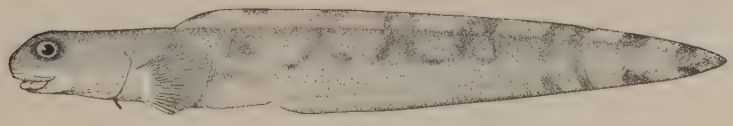
274

275

272. Lycodes Esmarkii. (p. 303.)
274. Lycodes frigidus. (p. 305.)

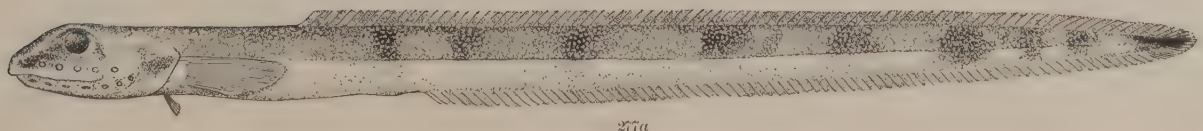
273. Lycodes reticulatus. (p. 305.)
275. Lycodes mucosus. (p. 306.)

276



276*a*

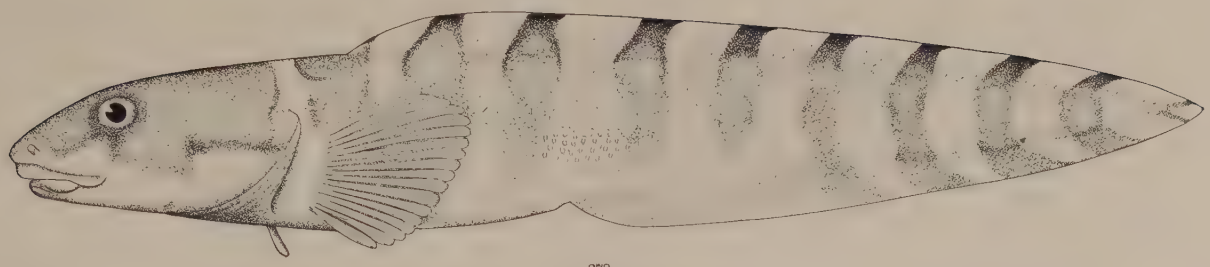
277



277*a*

276, 276*a*. Lycodes zoarchus. (p. 308.)

277. 277*a*. Lycenchelys Verrillii. (p. 309.)



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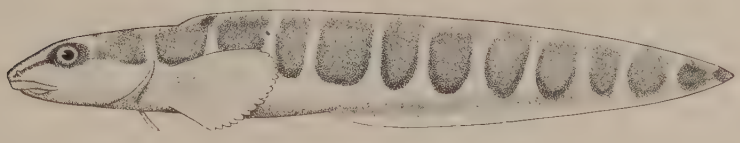
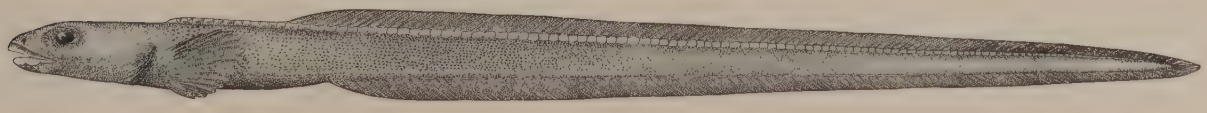


278*a*

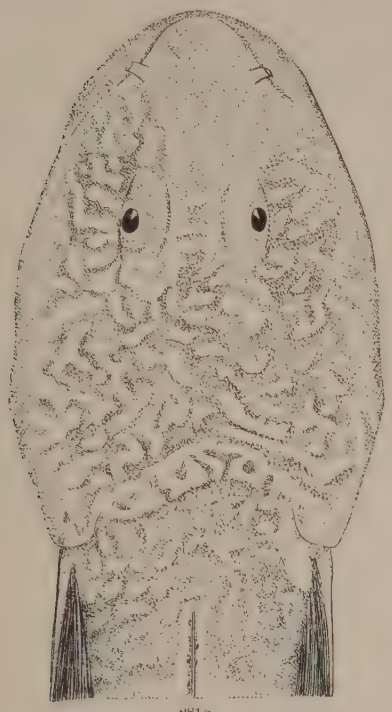
279

279*a*

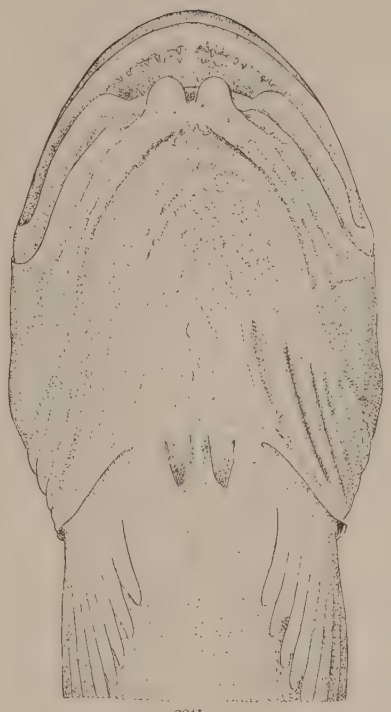


280

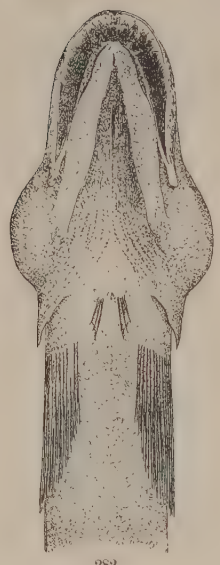
278, 278*a*. LYCODES PERSPICILLUM. (p. 307.)
279, 279*a*. LYCENCHELYS PAXILLUS. (p. 311.)
280. LYCODONUS MIRABILIS. (p. 312.)



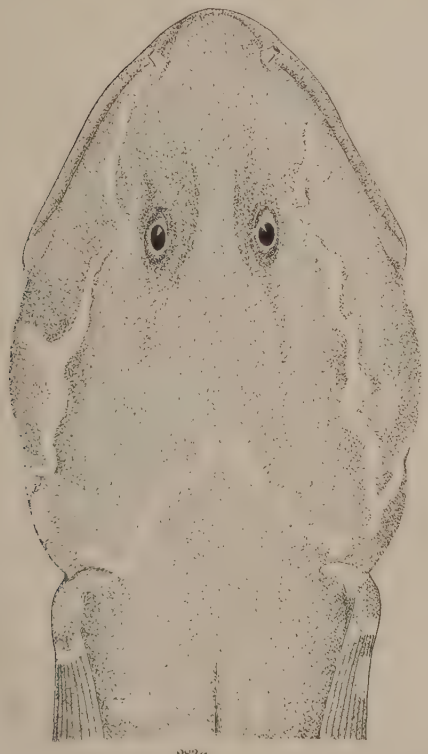
281*a*



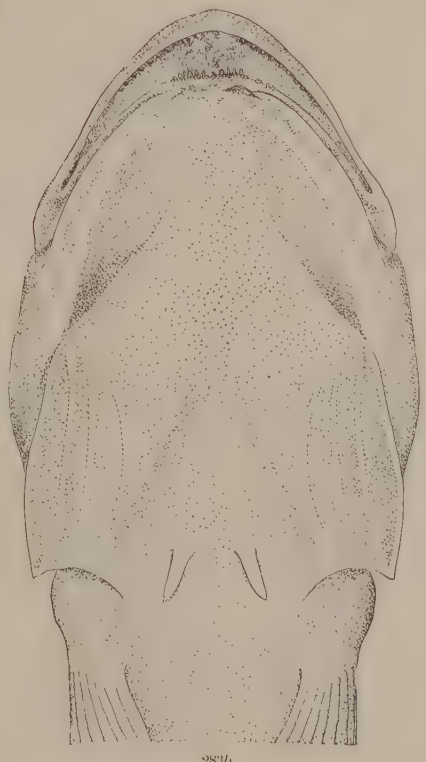
281*b*



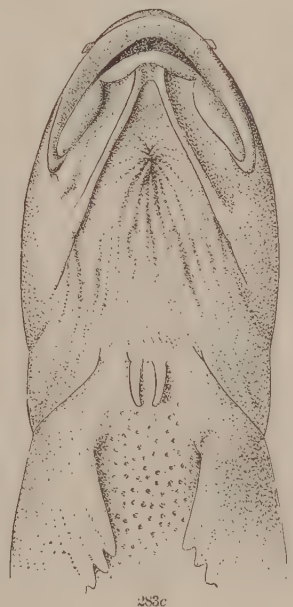
282



283*a*



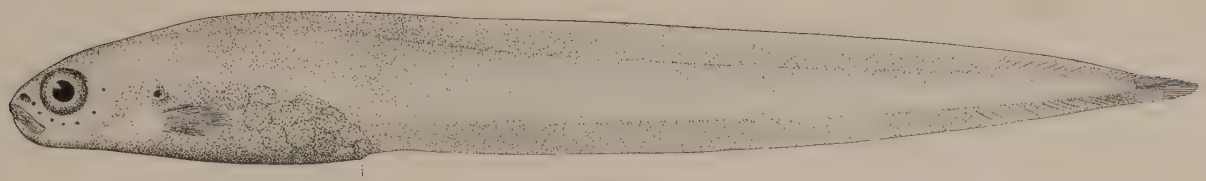
283*b*



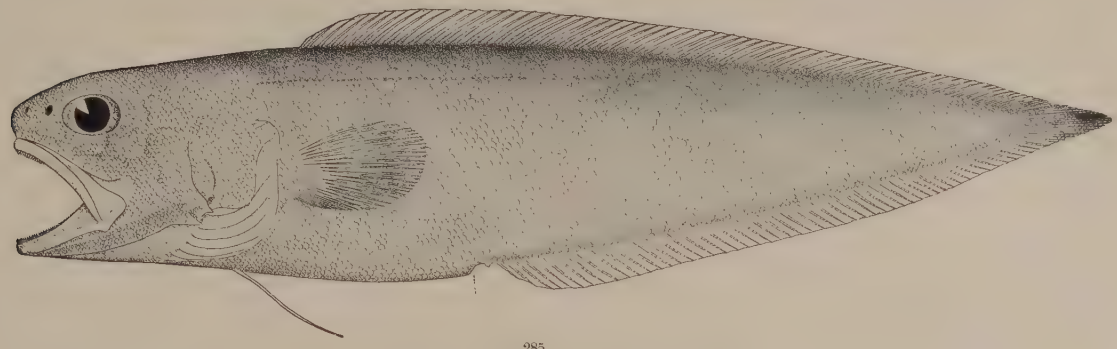
283*c*

281*a*, *b*. Lycodes reticulatus. (p. 305.)
283*a*, *b*. Lycodes mucosus. (p. 306.)

282. Lycenchelys paxillus. (p. 311.)
283*c*. Lycodes zoarchus. (p. 308.)



284



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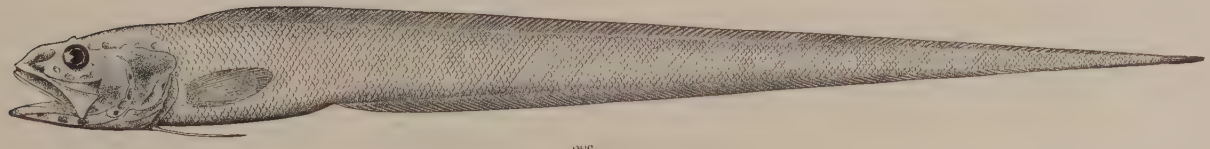

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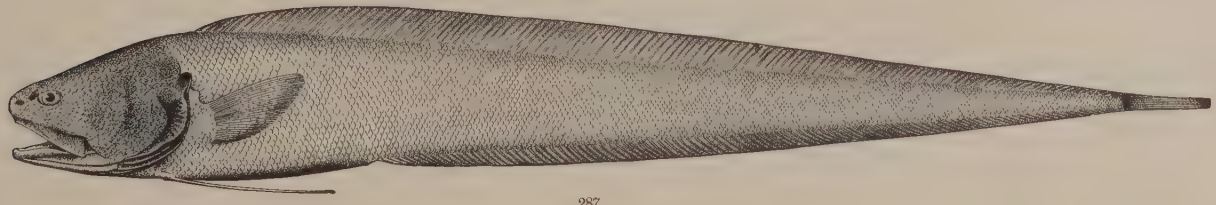

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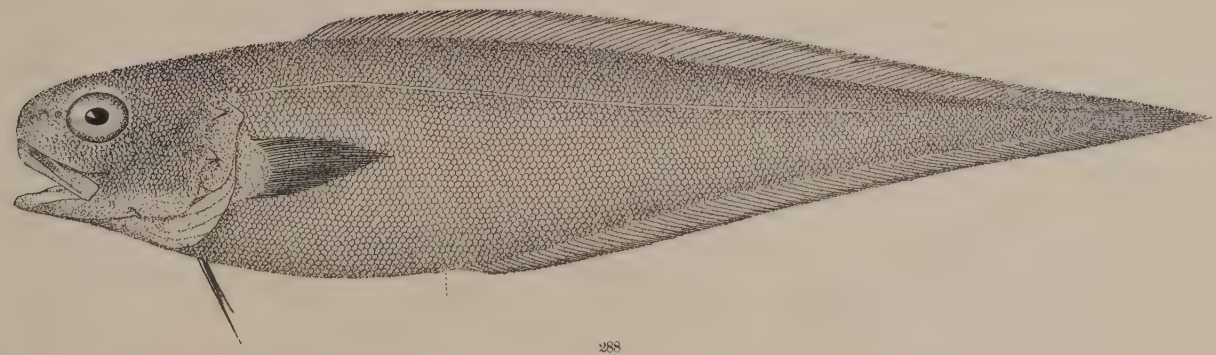
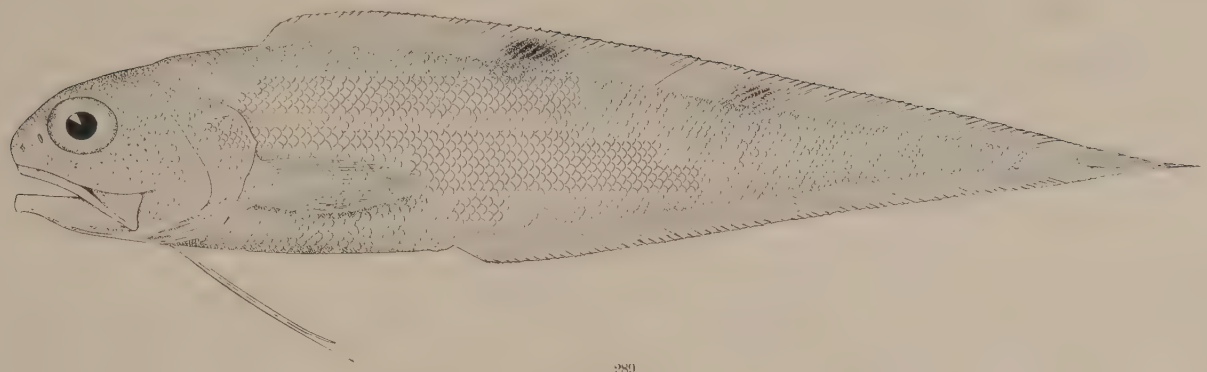


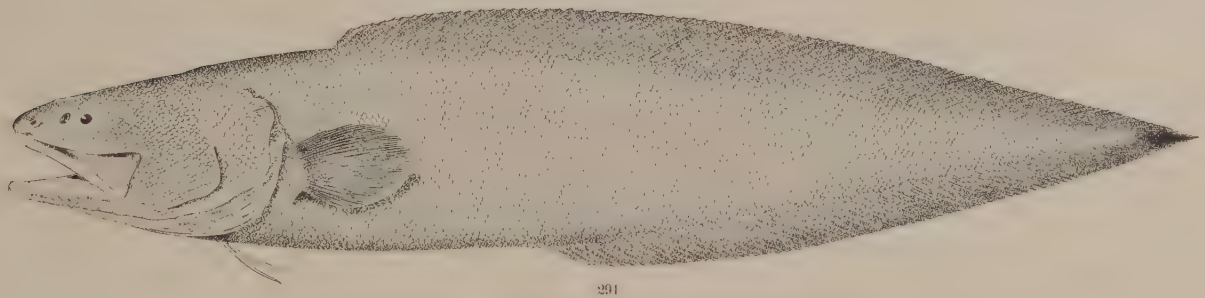
288

284. Melanostigma gelatinosum. (p. 314.)
285. Dicromita Agassizii. (p. 319.)
286. Bassozetus catena. (p. 323.)
287. Bassozetus normalis. (p. 322.)
288. Benthocometes robustus. (p. 327.)



289

290



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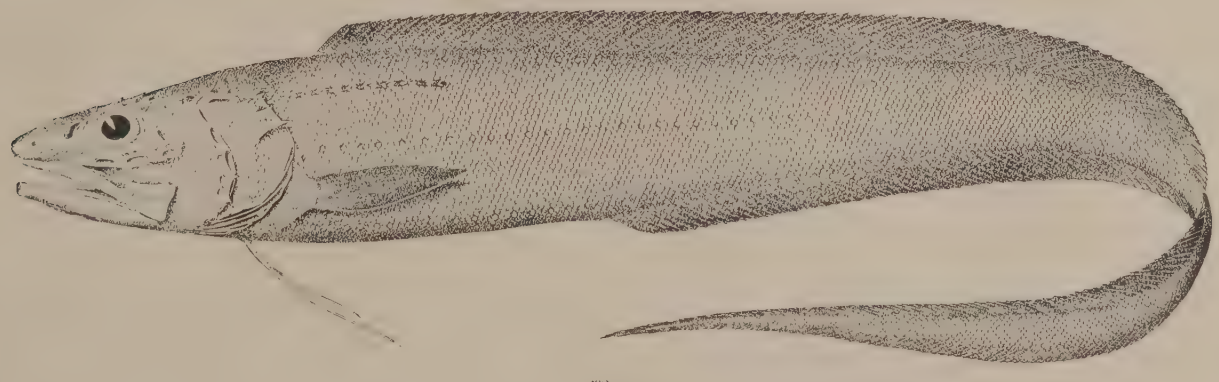
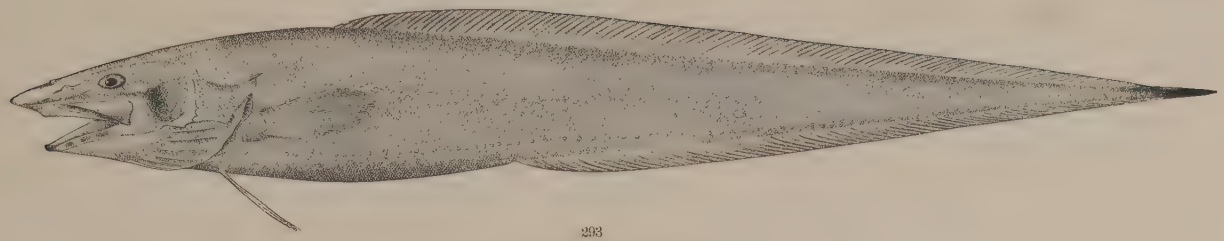


292

289. NEOBYTHITES GILLII. (p. 325.)
290. NEOBYTHITES MARGINATUS. (p. 326.)
291. BASSOGIGAS GILLII. (p. 328.)
292. POROGADUS MILES. (p. 334.)



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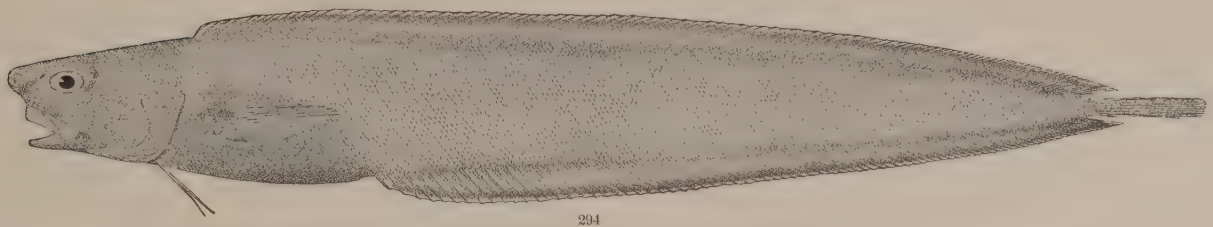

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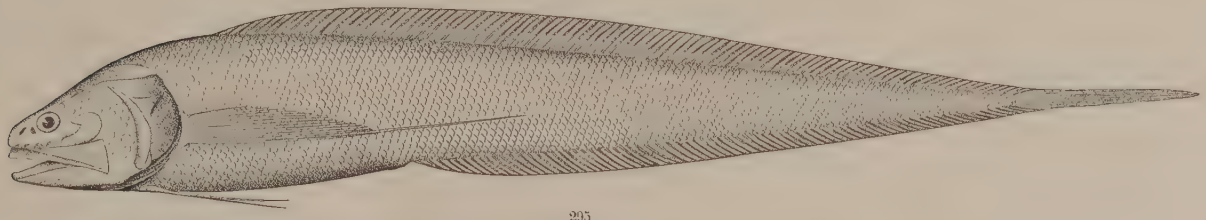

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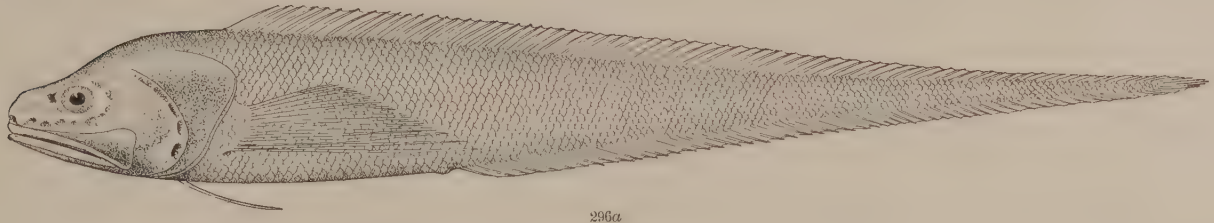
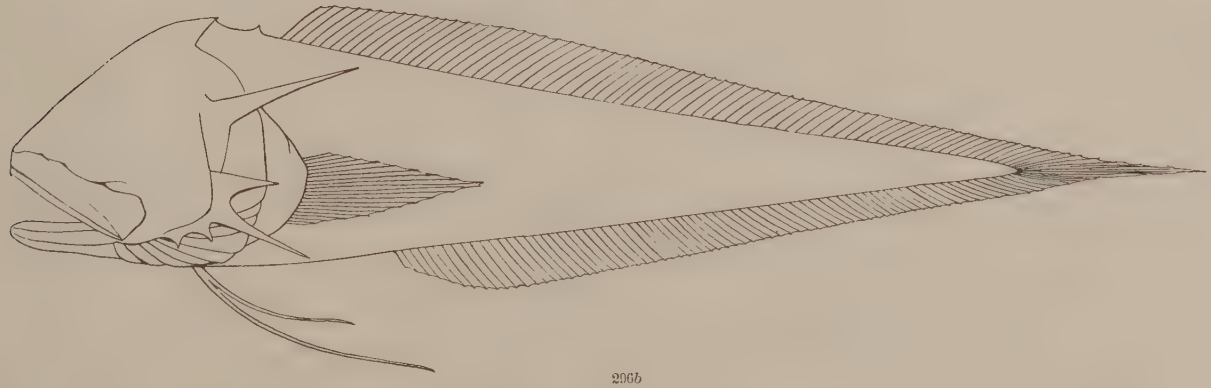
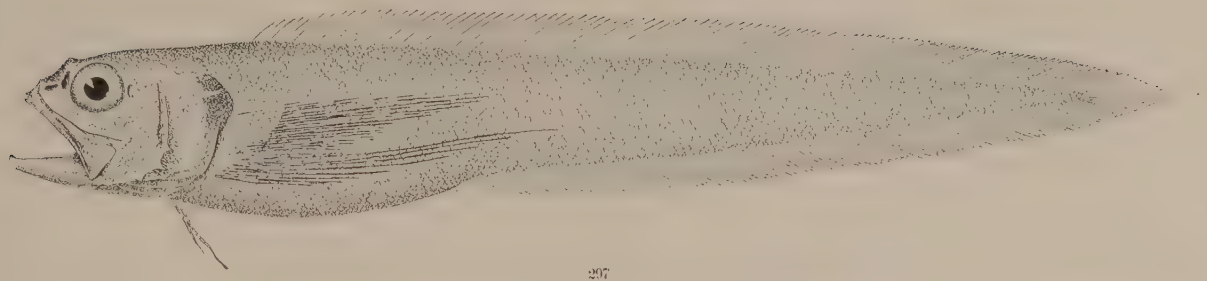


296*a*



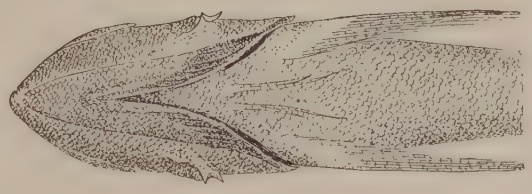
296*b*

293. Penopus Macdonaldi. (p. 336.)
295. Nematonus pectoralis. (p. 333.)
294. Barathrodemus manatinus. (p. 332.)
296*a*. Mixonus laticeps. (p. 339.)
296*b*. Tauredophidium Hextii. (p. 336.)

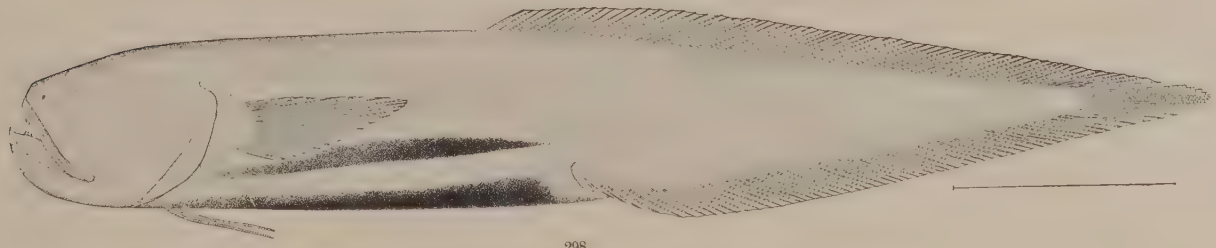


297

297a



297b



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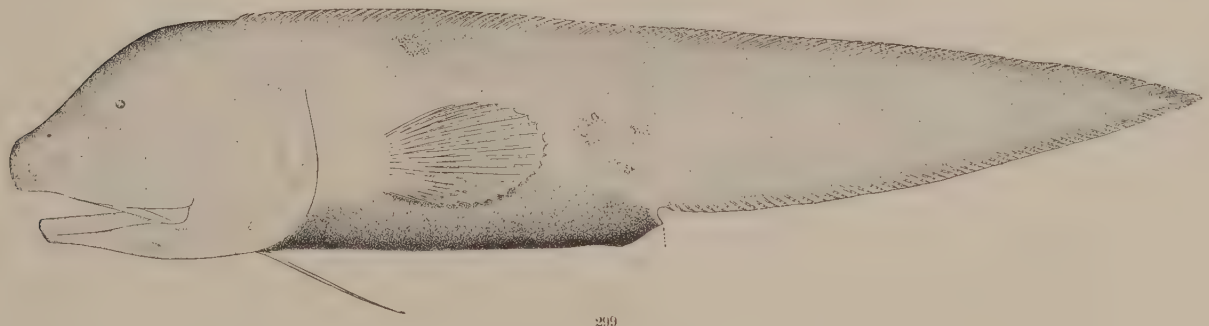
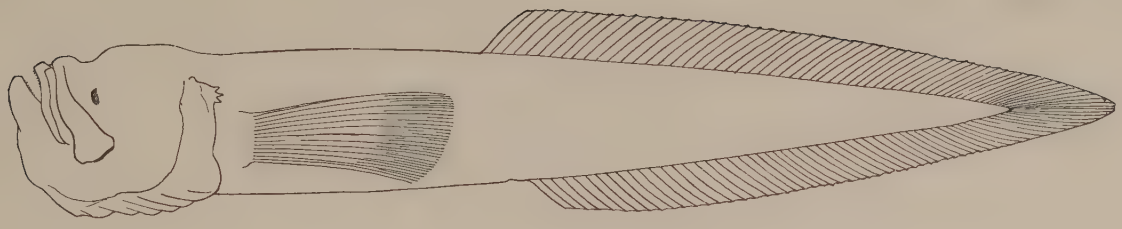


299

297, 297*a*, *b*. Dicrolene intronigra. (p. 338.)
298. Barathronus bicolor. (p. 341.)
299. Aphyonus mollis. (p. 342.)



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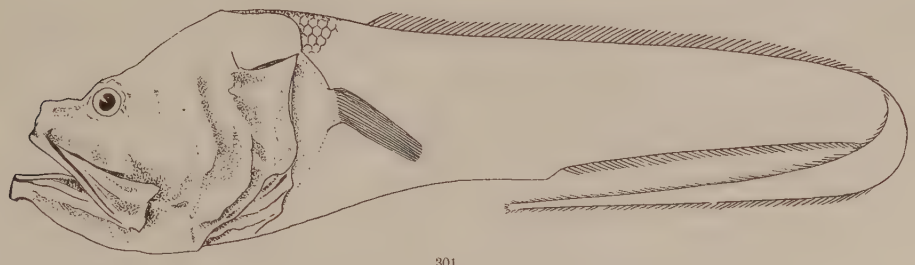

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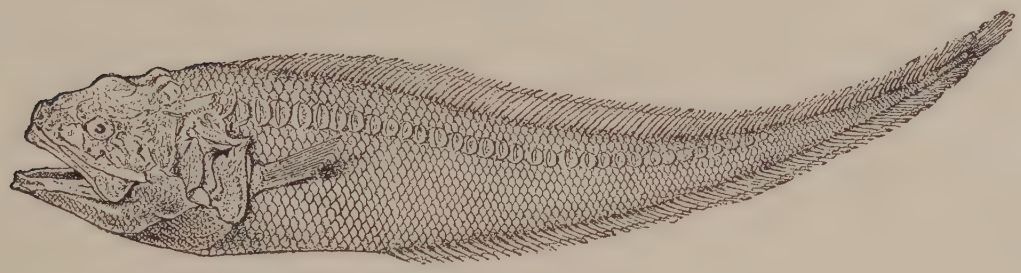

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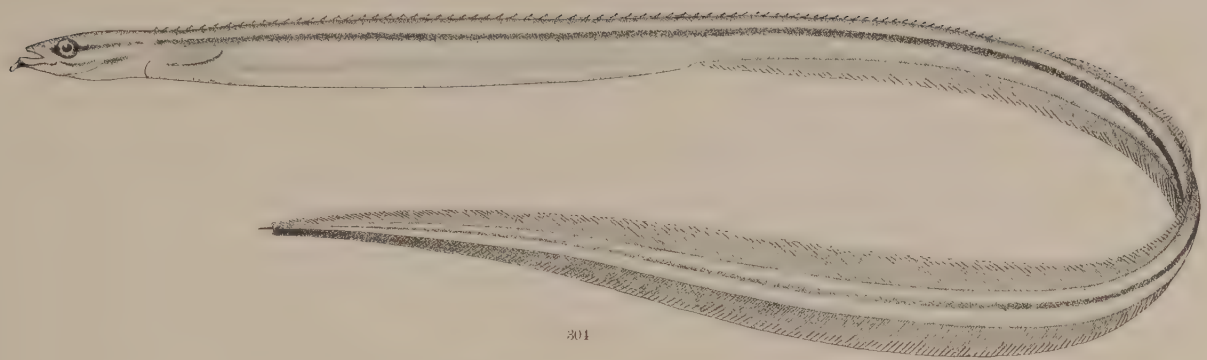
303

300. Alexeterion parfaiti. (p. 343.)
302. Lamprogrammus niger. (p. 344.)

301. Hephthocara simum. (p. 344.)
303. Rhodichthys regina. (p. 342.)



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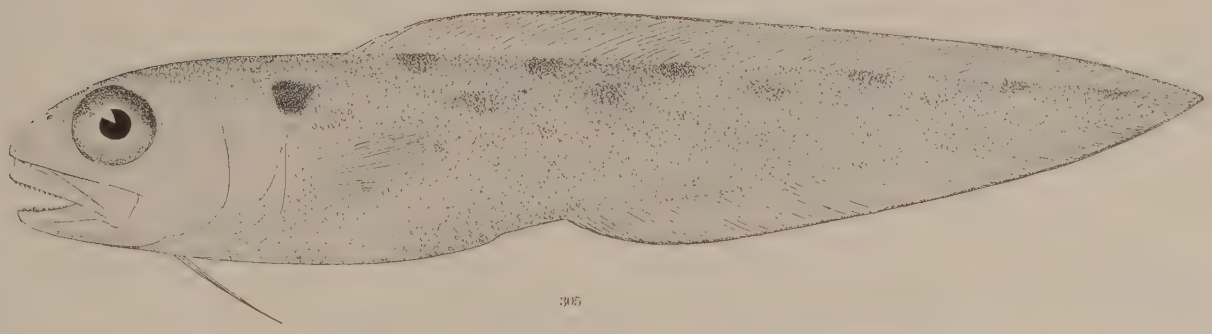

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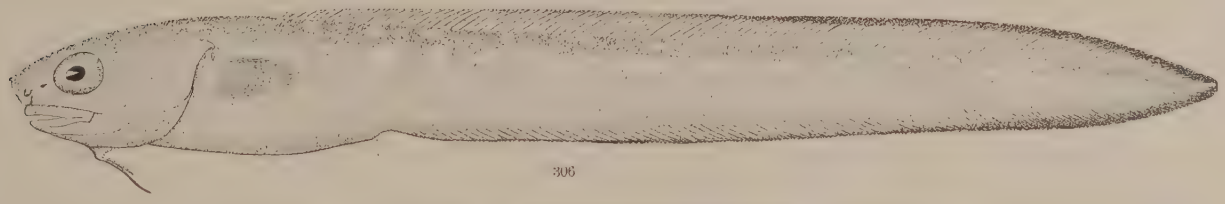

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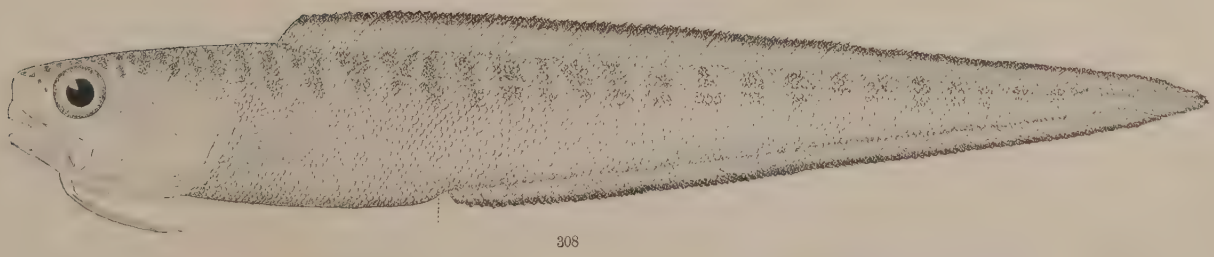
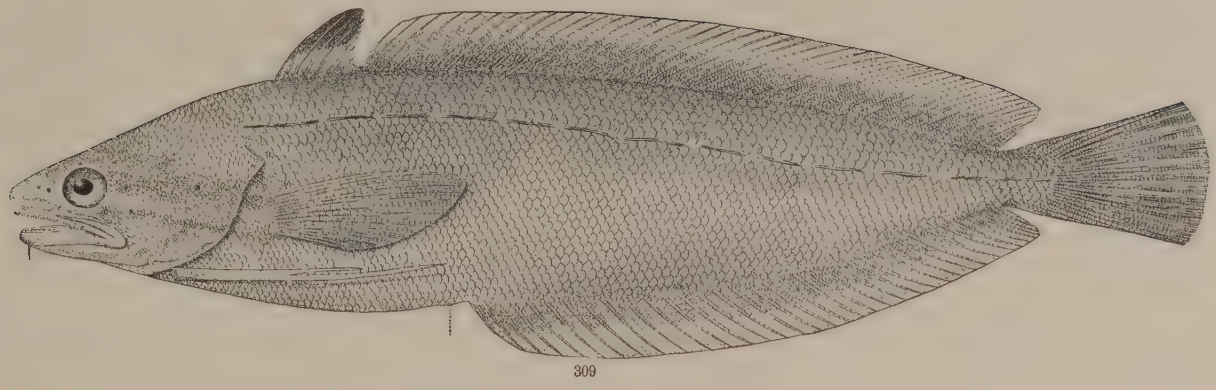


308

304. Ptilichthys Goodei. (p. 302.)
305. Otophidium omostigma (p. 345.)
306. Leptophidium cervinum. (p. 346.)
307. Leptophidium profundorum. (p. 347.)
308. Leptophidium marmoratum. (p. 348.)



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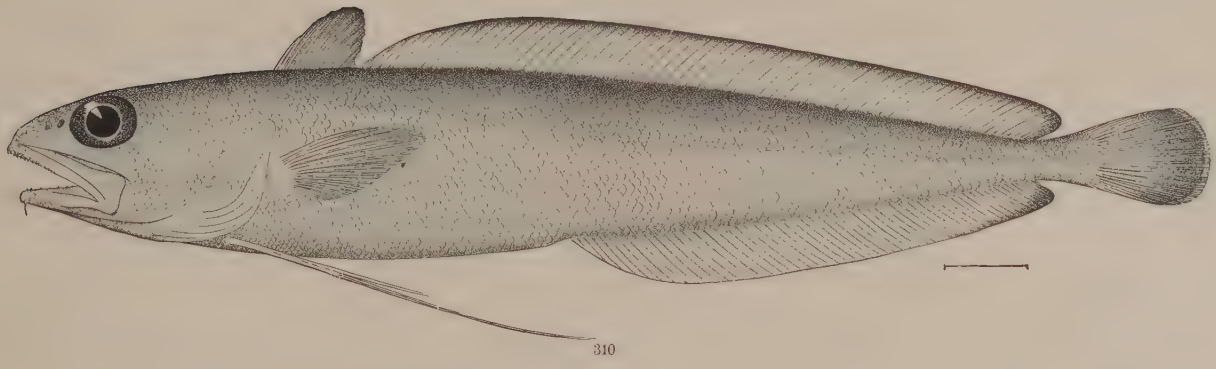

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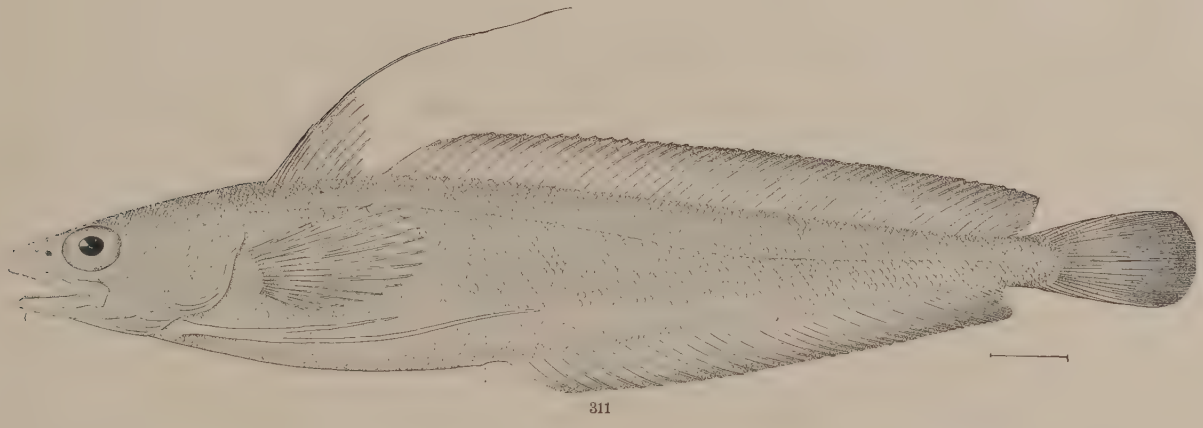
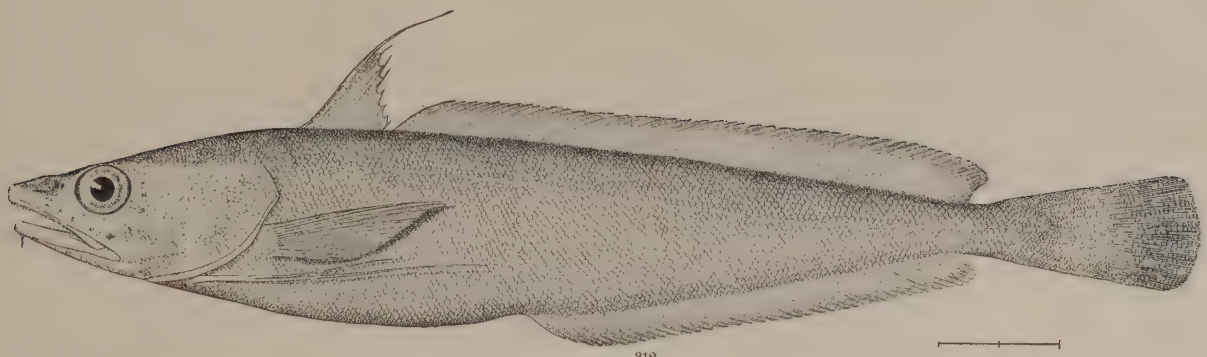


311

309. PHYCIS REGIUS. (p. 357.) 310. PHYCIS CIRRATUS. (p. 358.) 311. PHYCIS CHUSS. (p. 359.)



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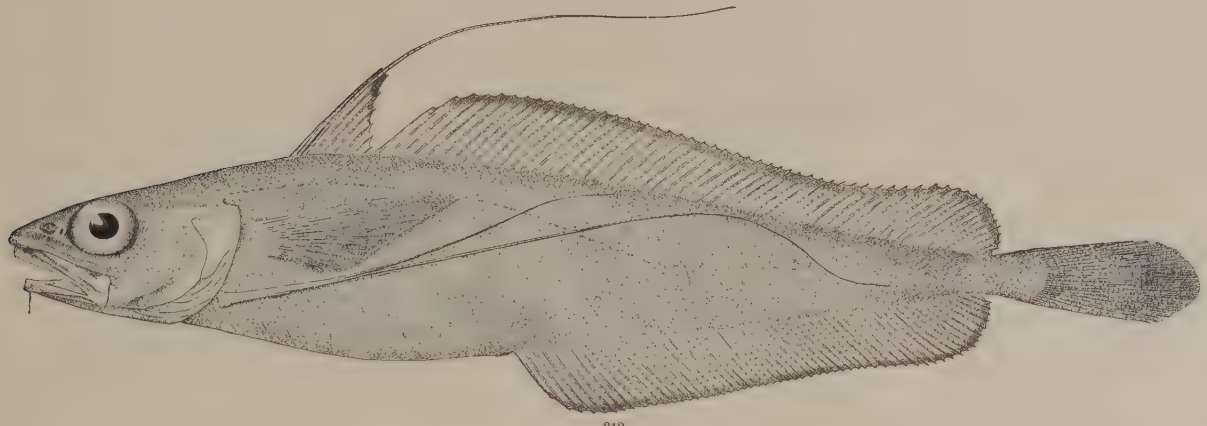

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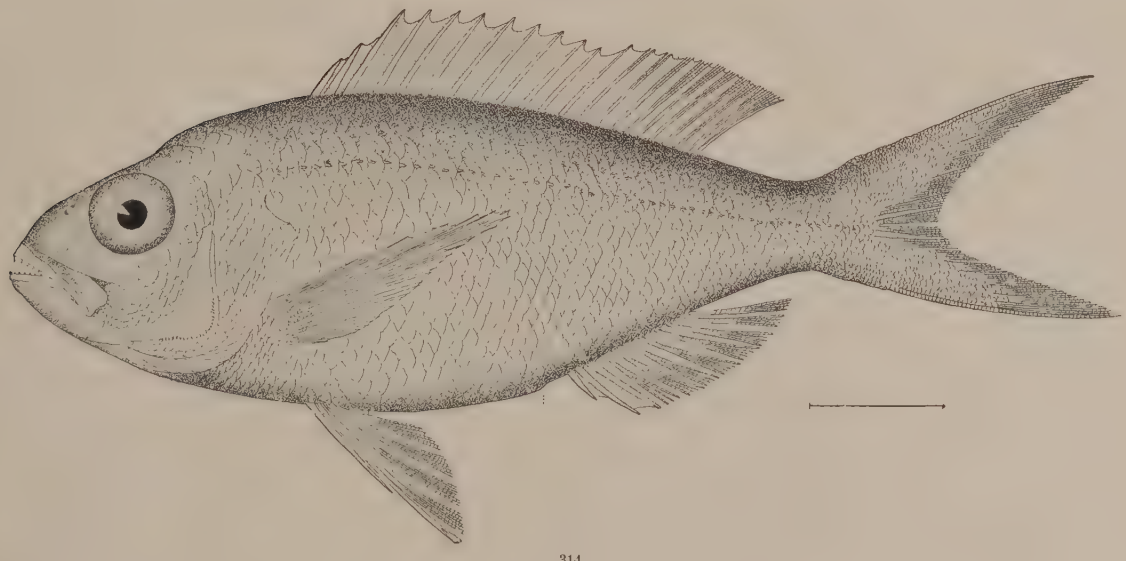
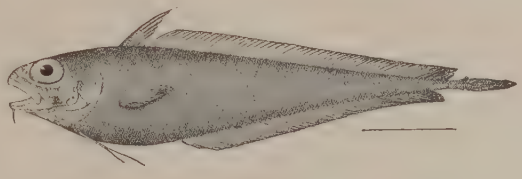


314

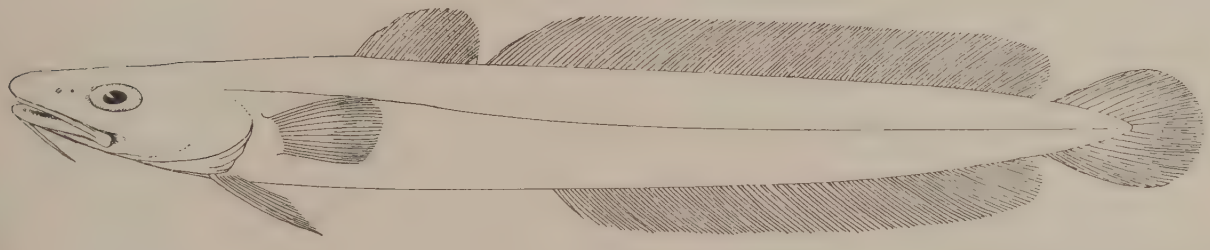
312. Phycis tenuis. (p. 359.) 313. Phycis Chesteri. (p. 360.) 314. Aprion macrophthalmus. (p. 239.)

315



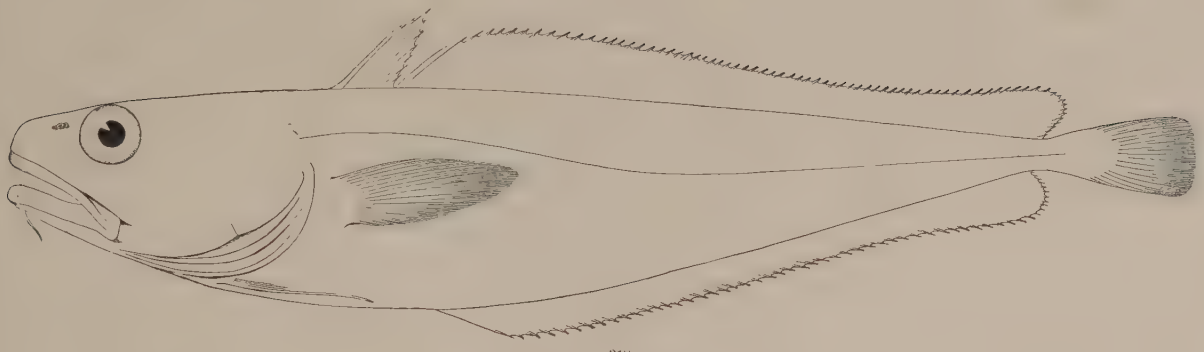
315*a*

316



317

315, 315*a*. LÆMONEMA BARBATULA. (p. 362.)
316. LÆMONEMA MELANURUM. (p. 363.)
317. MOLVA VULGARIS. (p. 364.)



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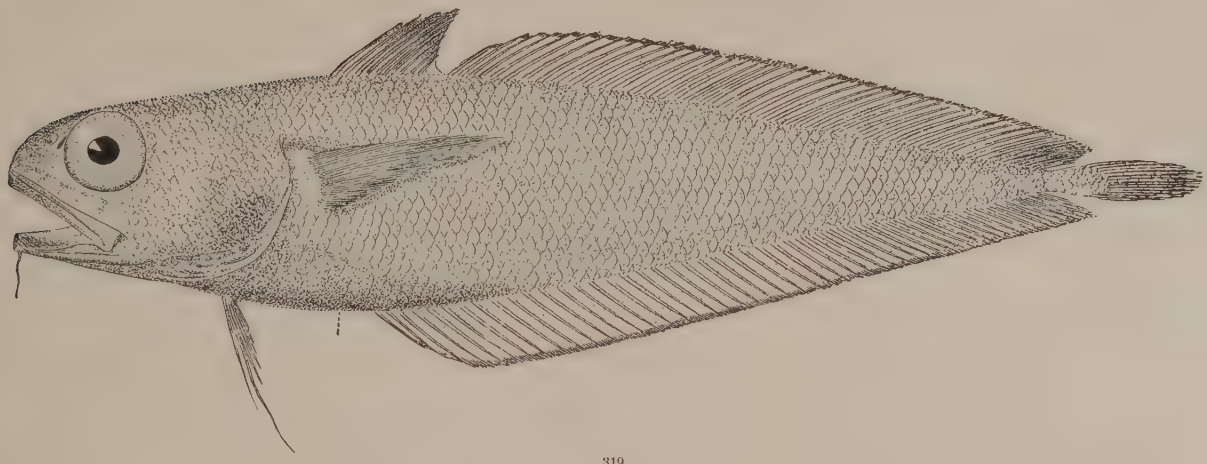

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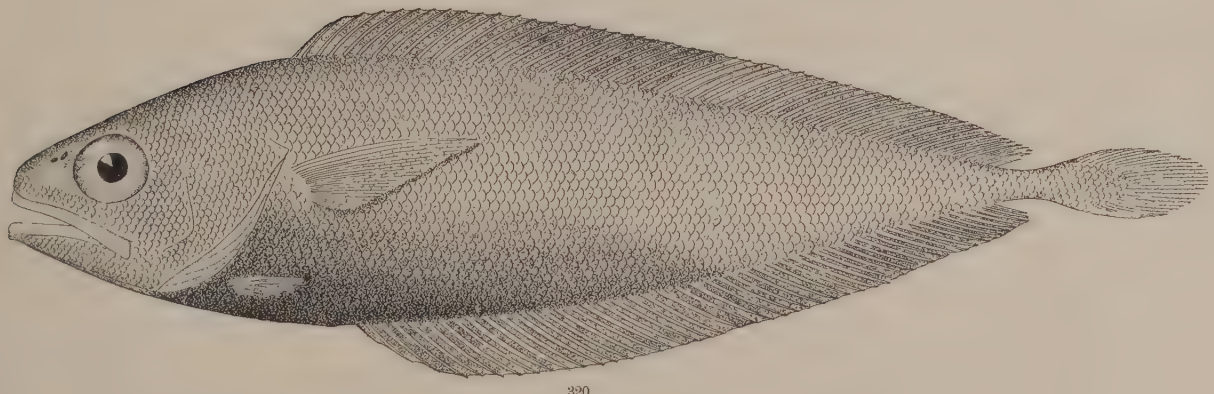
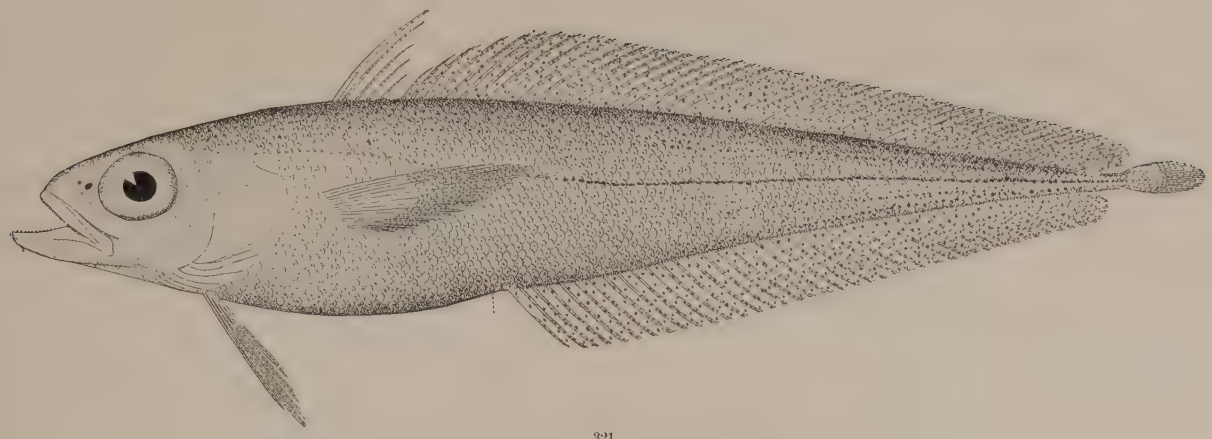


320

318. Physiculus Kaupi. (p. 366.) 319. Physiculus fulvus. (p. 366.) 320. Uraleptus Maraldi. (p. 367.)



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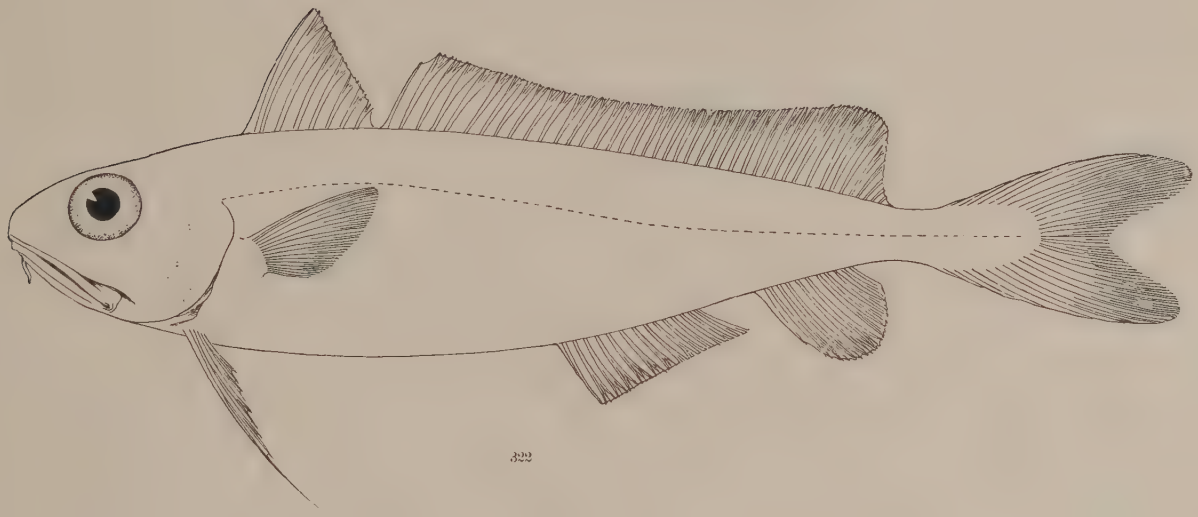

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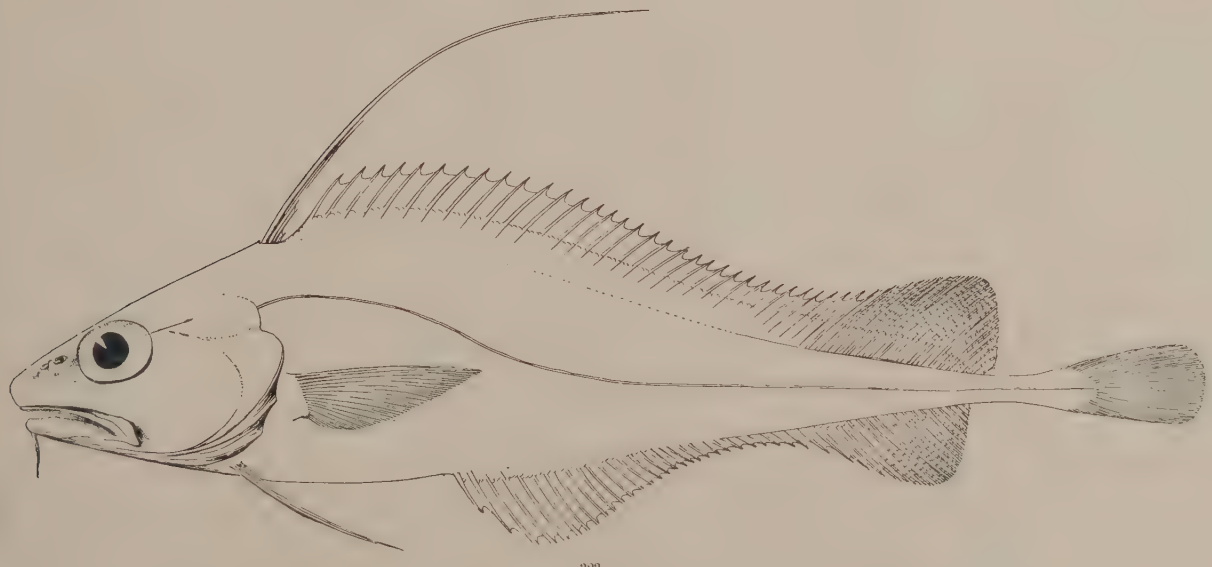
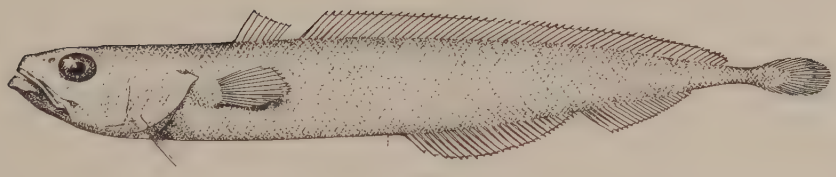


323

321. Lotella maxillaris. (p. 368.) 322. Mora mediterranea. (p. 369.) 323. Lepidion Rissoi. (p. 370.)

324



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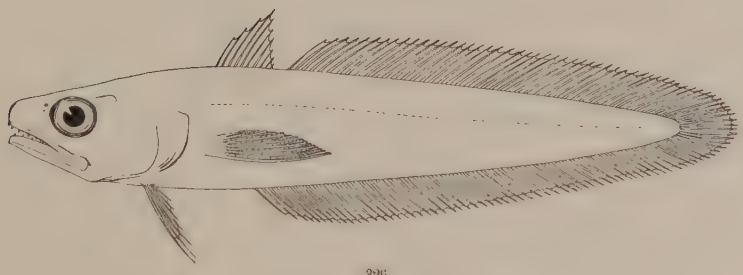

326

324. Antimora viola. (p. 372.) 325. Halargyreus brevipes. (p. 375.) 326. Strinsia tinca. (p. 380.)

327

328

329

327. Onos ensis. (p. 381.) 328. Rhinonemus cimbrius. (p. 384.) 329. Brosmius brosme. (p. 385.)

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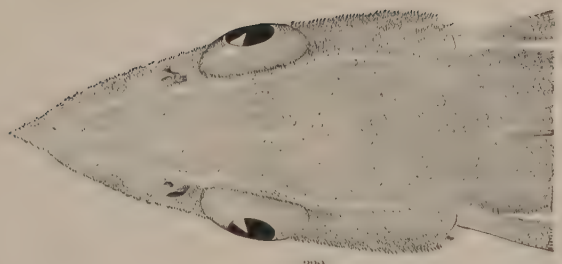
331



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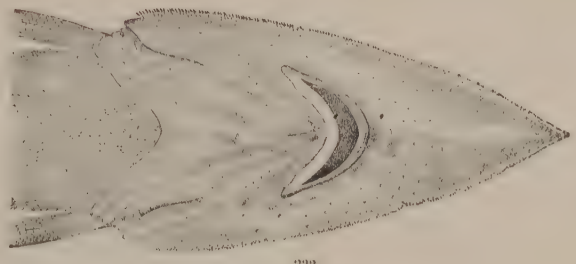
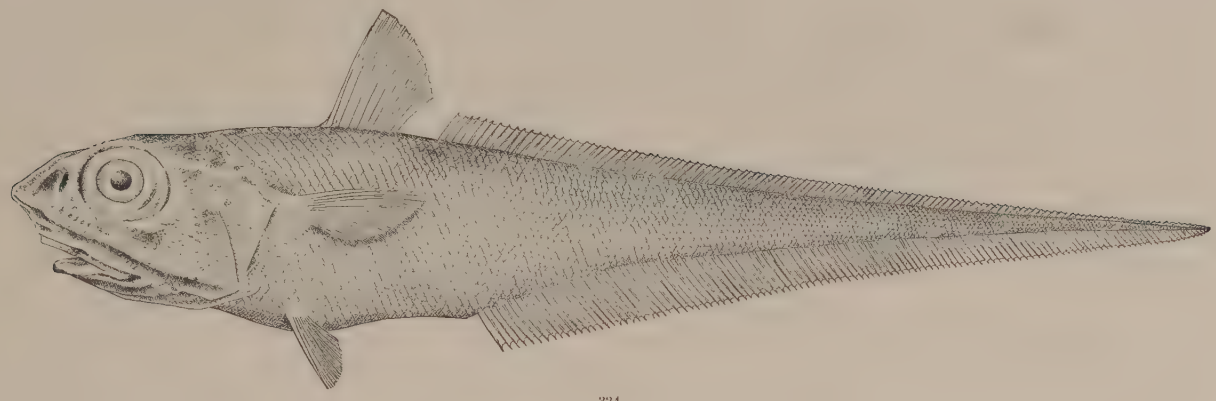


333

330. Merlucius bilinearis. (p. 386.) 331. Bregmaceros atlanticus. (p. 388.)
332, 333. Cœlorhynchus occa. (p. 400.)



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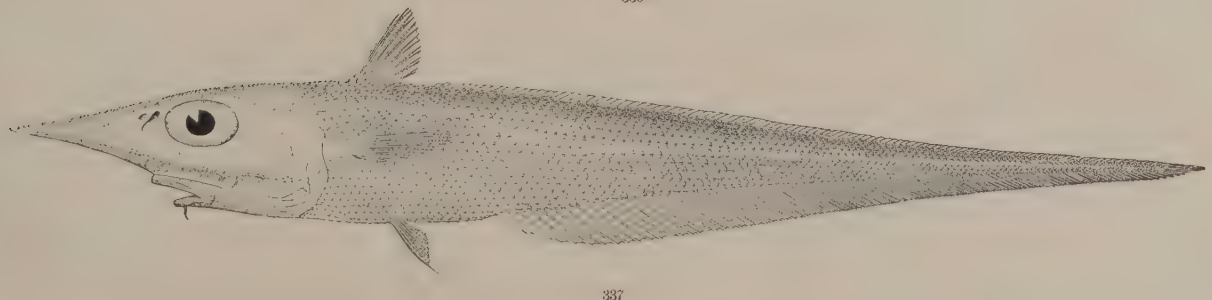
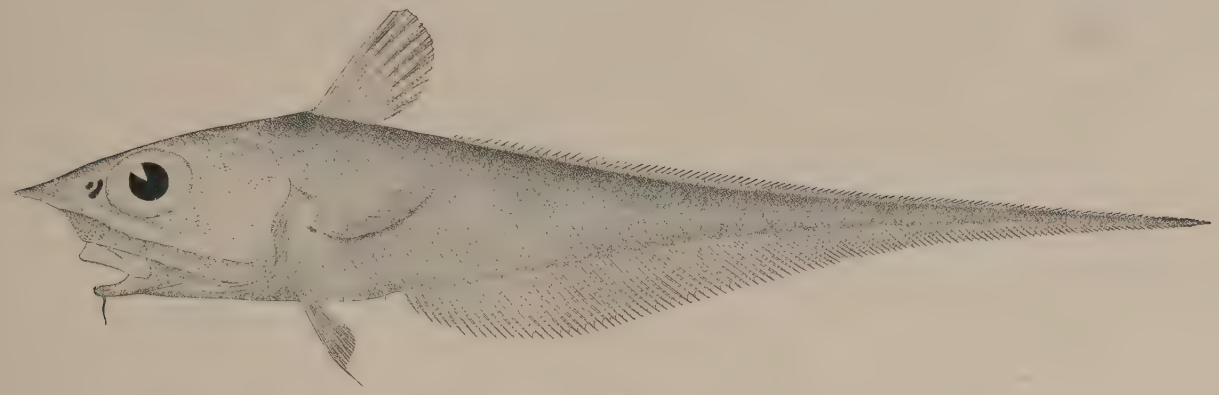
336



337

334. Macrurus berglax. (p. 391.)
335. Macrurus Bairdii. (p. 393.)
336. Cœlorhynchus carminatus. (p. 398.)
337. Cœlorhynchus occa. (p. 400.)



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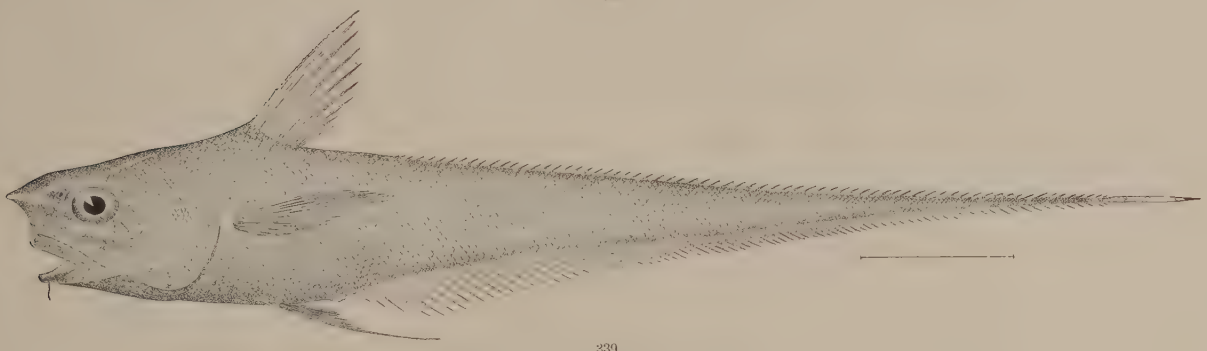

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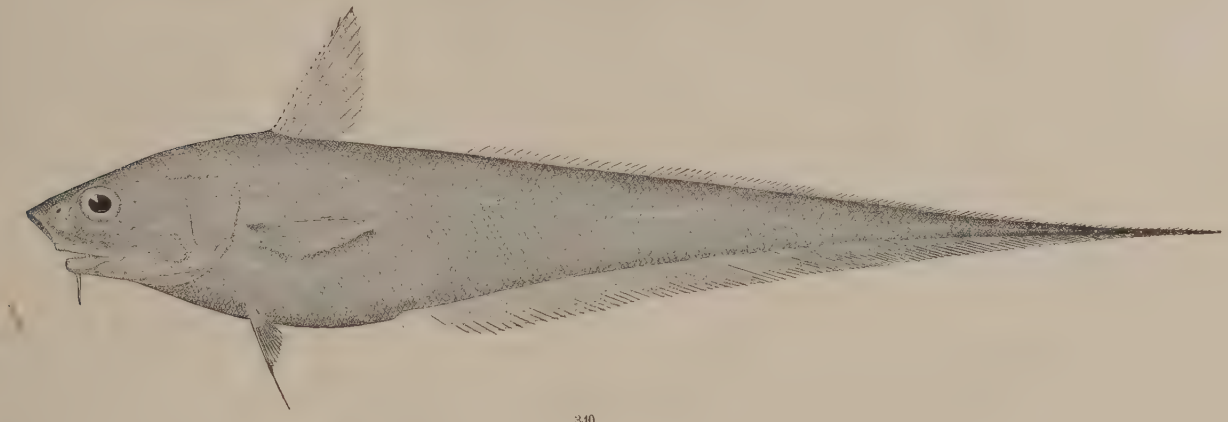

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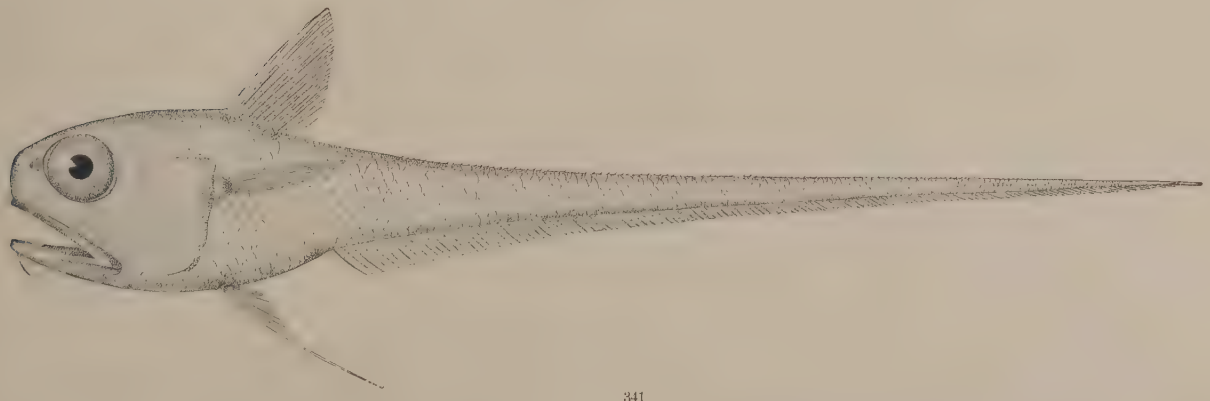
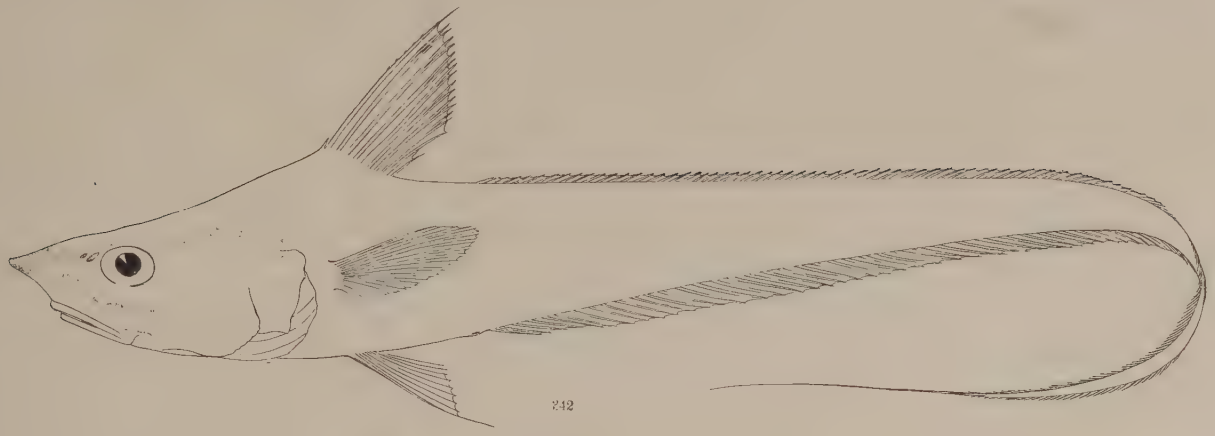


341

338. Cœlorhynchus caribbæus. (p. 401.)
340. Hymenocephalus Goodei. (p. 407.)

339. Coryphænoides carapinus. (p. 404.)
341. Hymenocephalus cavernosus. (p. 408.)



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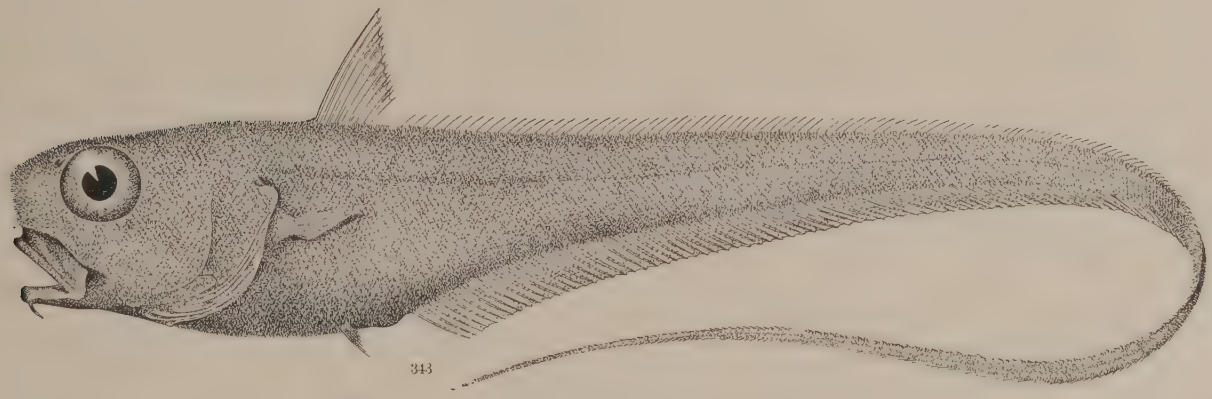

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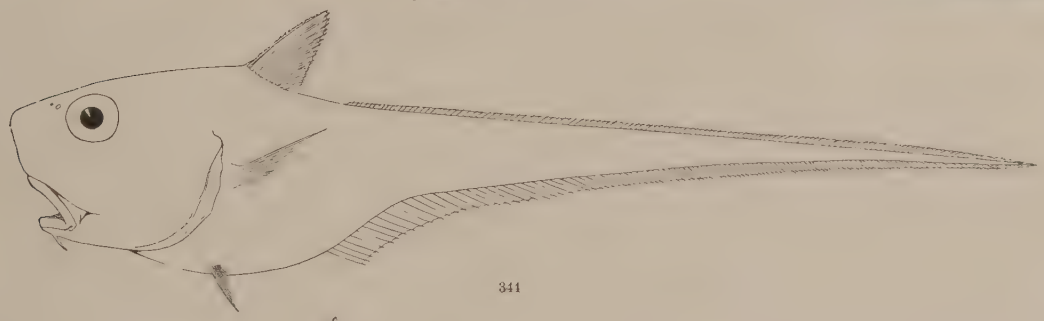

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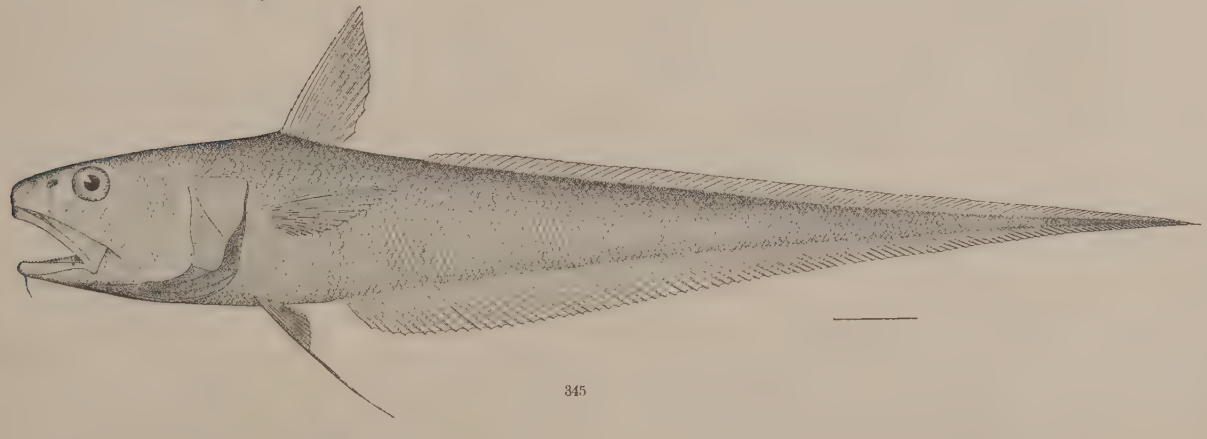
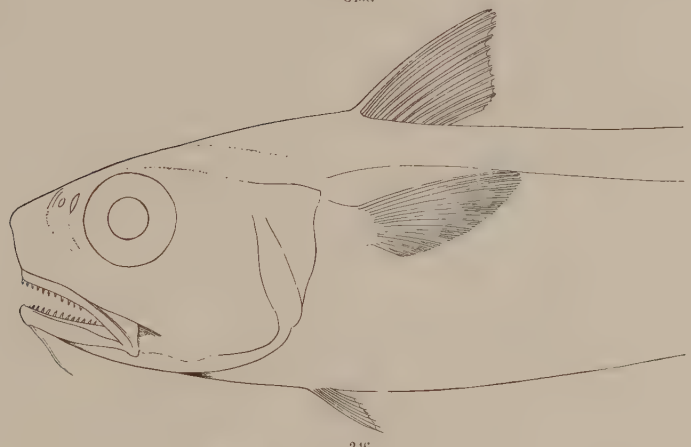


345

342. Lionurus filicauda. (p. 409.)
344. Cetonurus globiceps. (p. 411.)

343. Trachonurus sulcatus. (p. 410.)
345. Chalinura simula. (p. 412.)

345*a*



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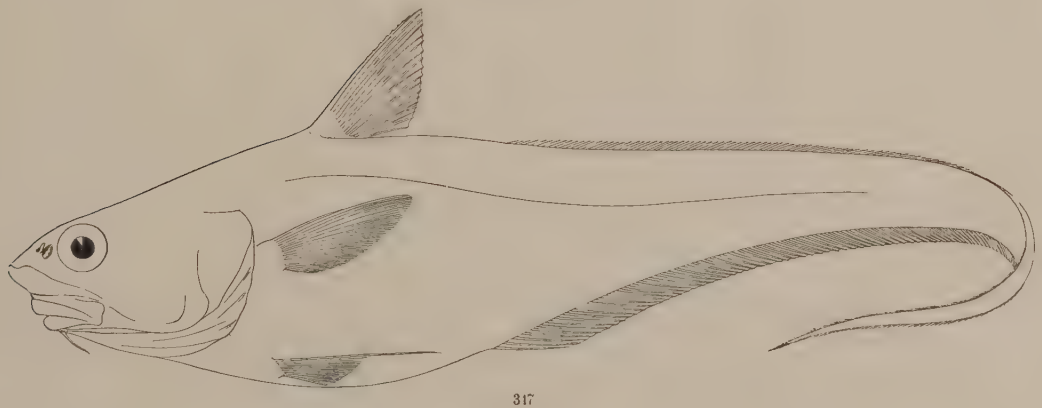
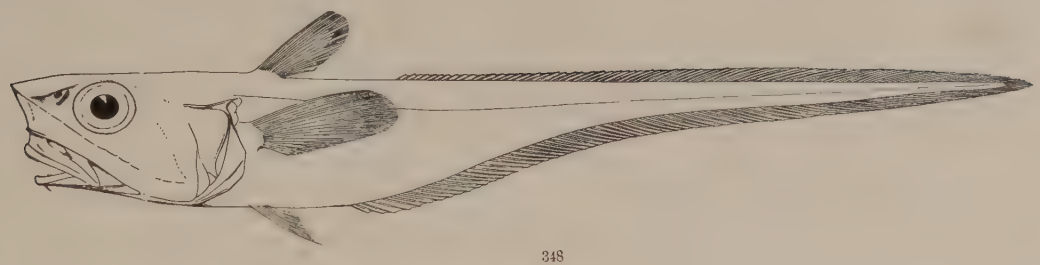


347

345*a*. Chalinura mediterranea. (p. 525.)
346. Nematonurus gigas. (p. 416.)
347. Moseleya longifilis. (p. 417.)



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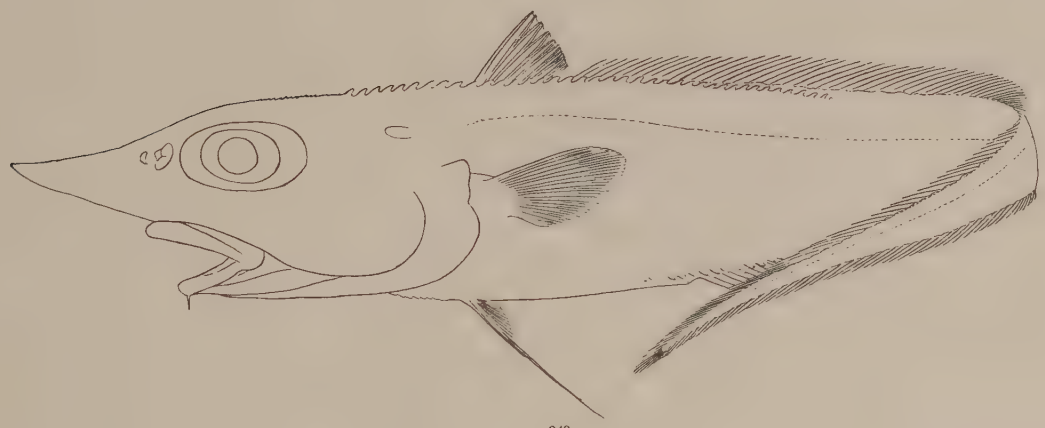

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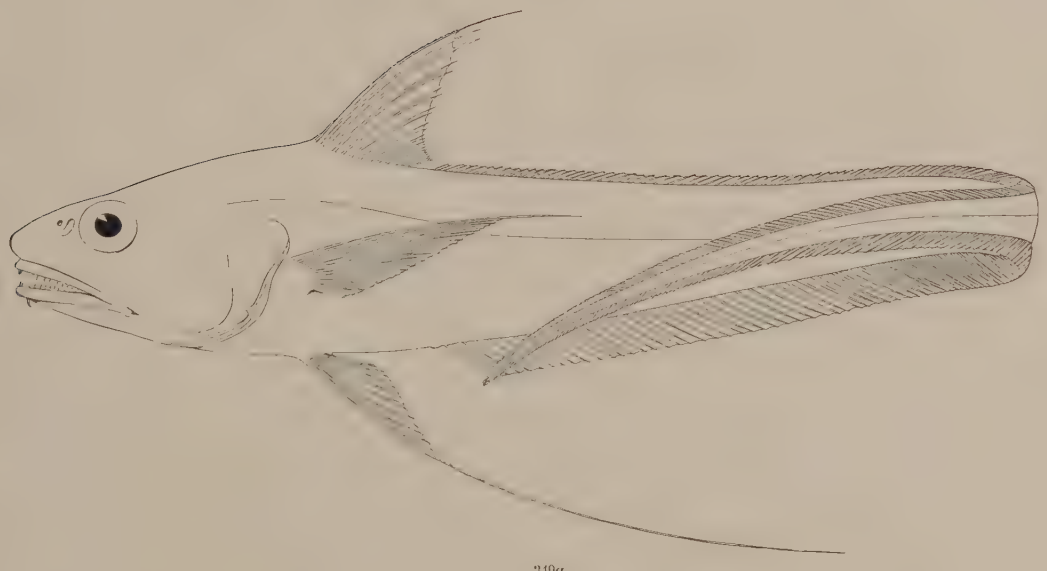
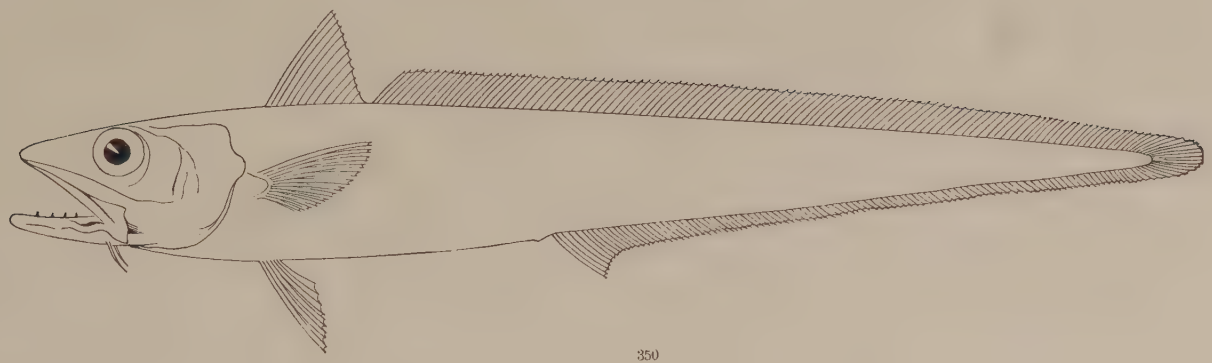


349*a*

348. Abyssicola macrochira. (p. 417.)

349. Trachyrhynchus scabrus. (p. 417.)

349*a*. Macrurus longifilis. (p. 417.)



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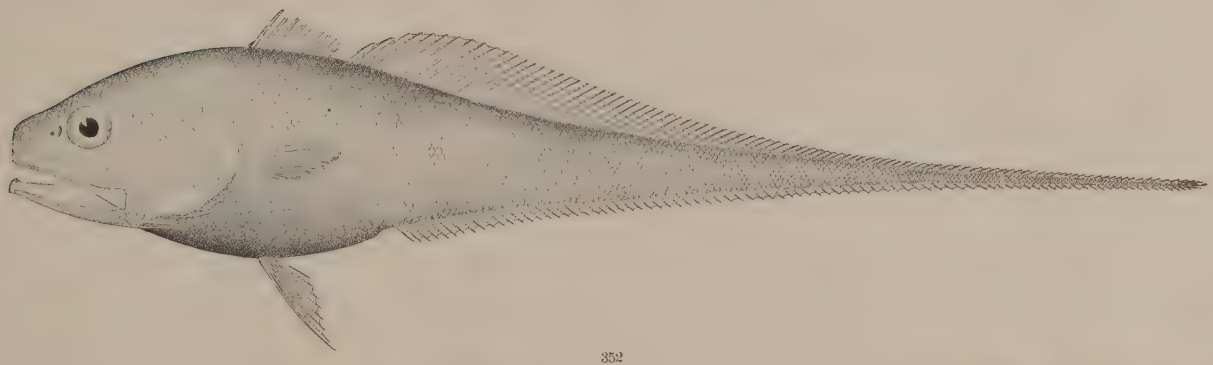

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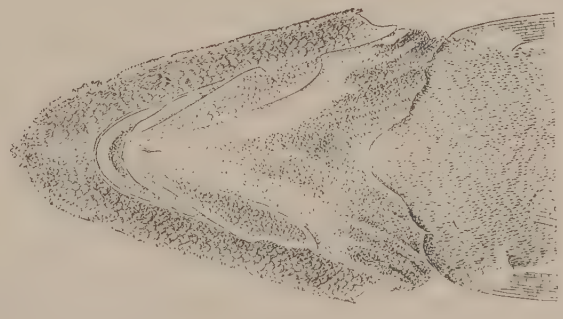
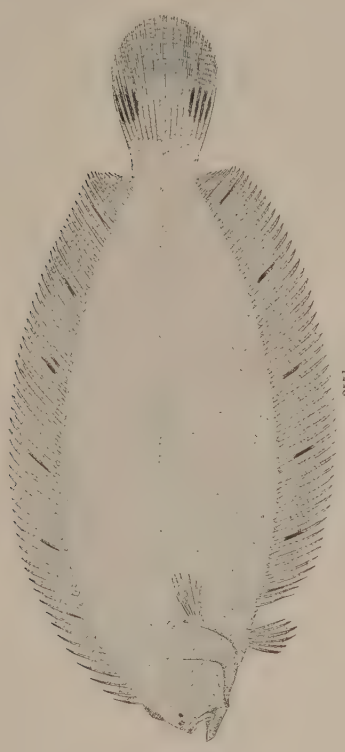


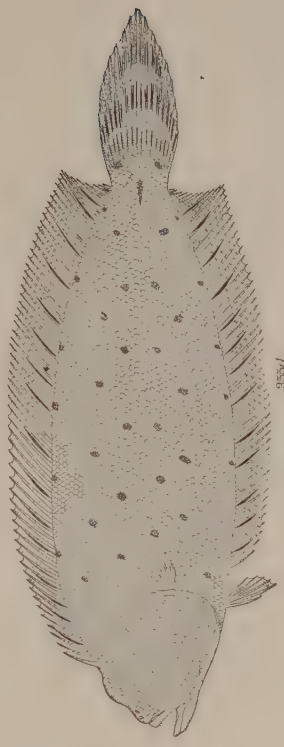
354

350. Macruronus novæ-zelandiæ. (p. 418.)
352. Bathygadus favosus. (p. 420.)

351. Steindachneria argentea. (p. 419.)
353, 354. Cœlorhynchus carminatus. (p. 398.)

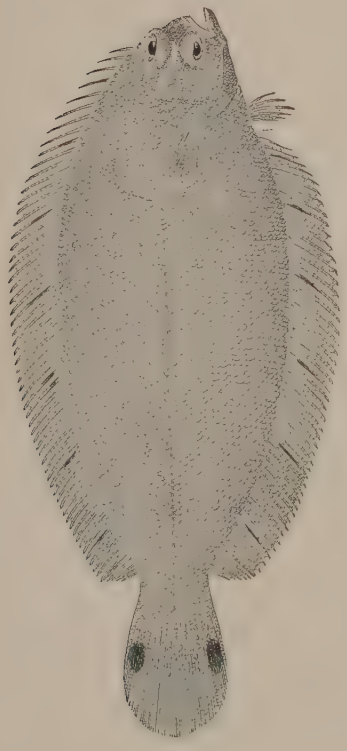


355b

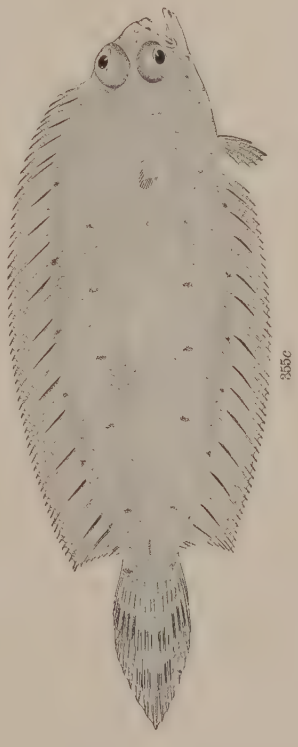


355d

356b



355a

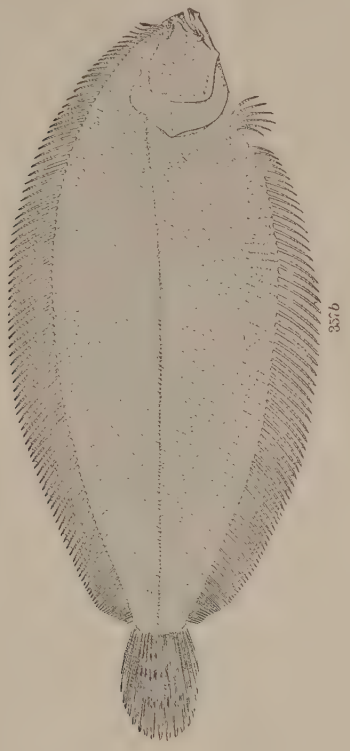


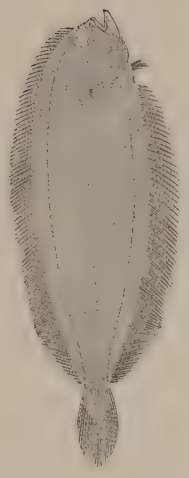
355c

356a

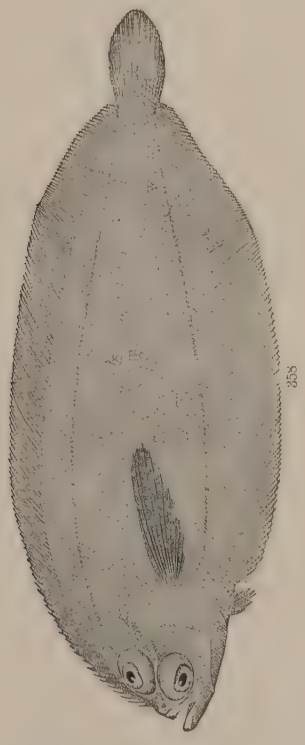
355*a–d*. Limanda Beanii. (p. 428.)

356*a*, *b*. Glyptocephalus cynoglossus. (p. 430.)



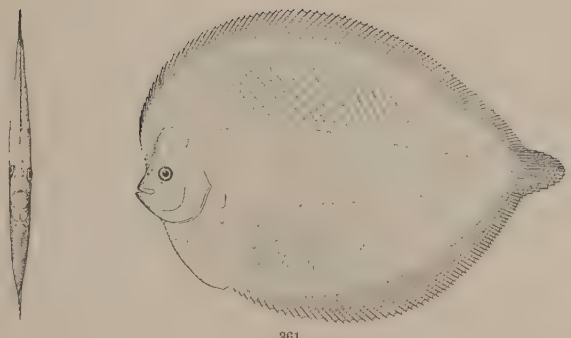


357*a*, *b*. MONOLENE SESSILICAUDA. (p. 452.)



358, 359. MONOLENE ATRIMANA. (p. 455.)

360



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362

360, 361. ETROPUS RIMOSUS. (p. 450.)

362. NOTOSEMA DILECTA. (p. 437.)

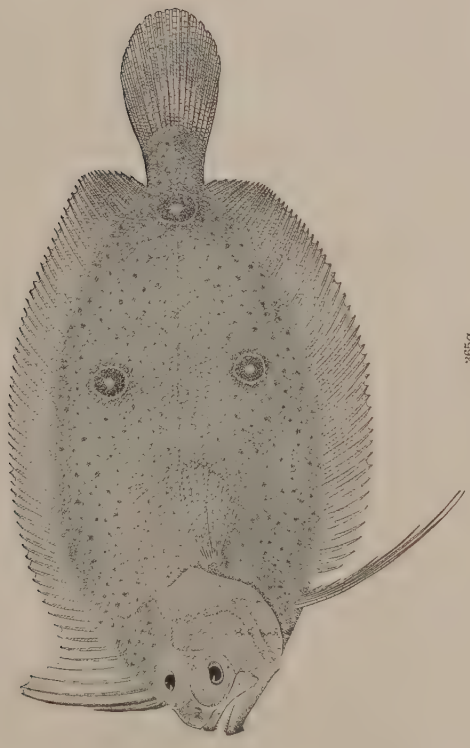
363

364

363. Hippoglossus vulgaris. (p. 434.)

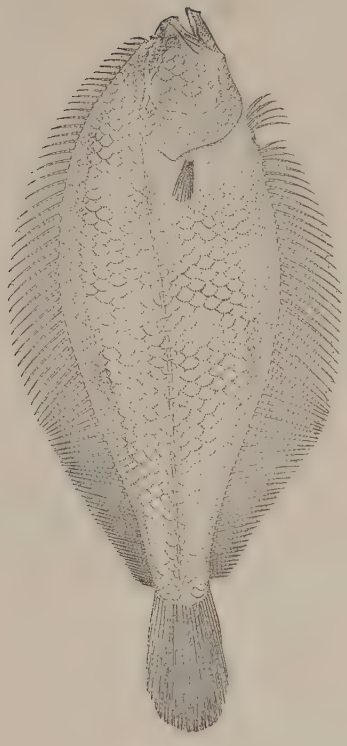
364. Platysomatichthys hippoglossoides. (p. 435.)

365*b*



365*a*

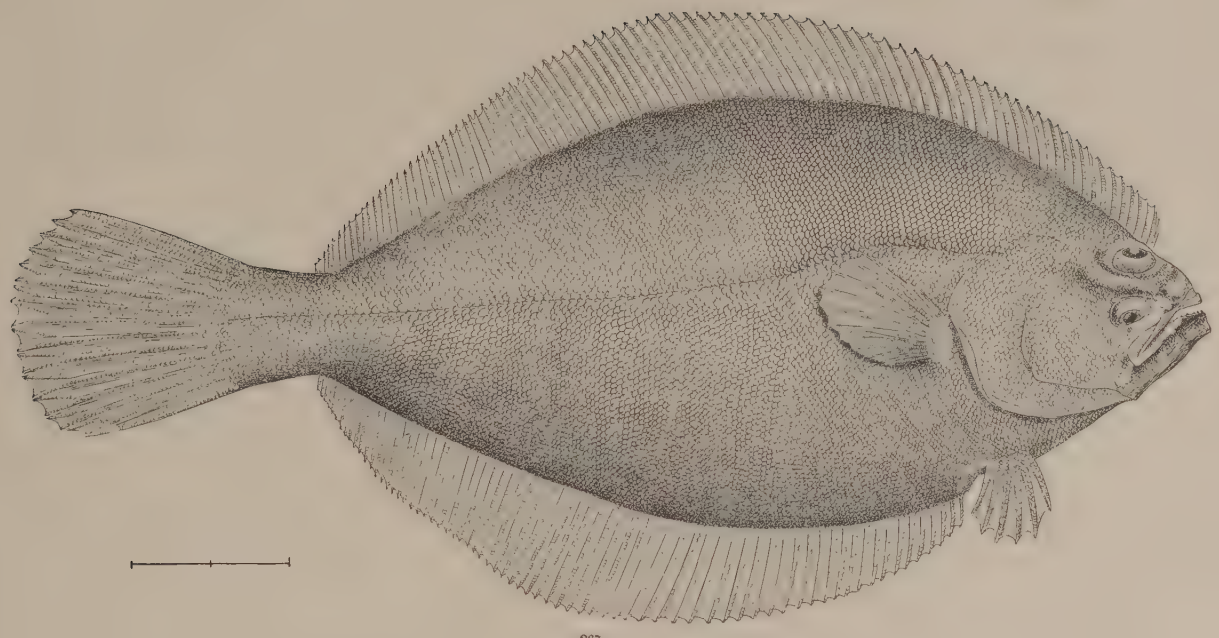
365*a*, *b*. NOTOSEMA DILECTA. (p. 437.)



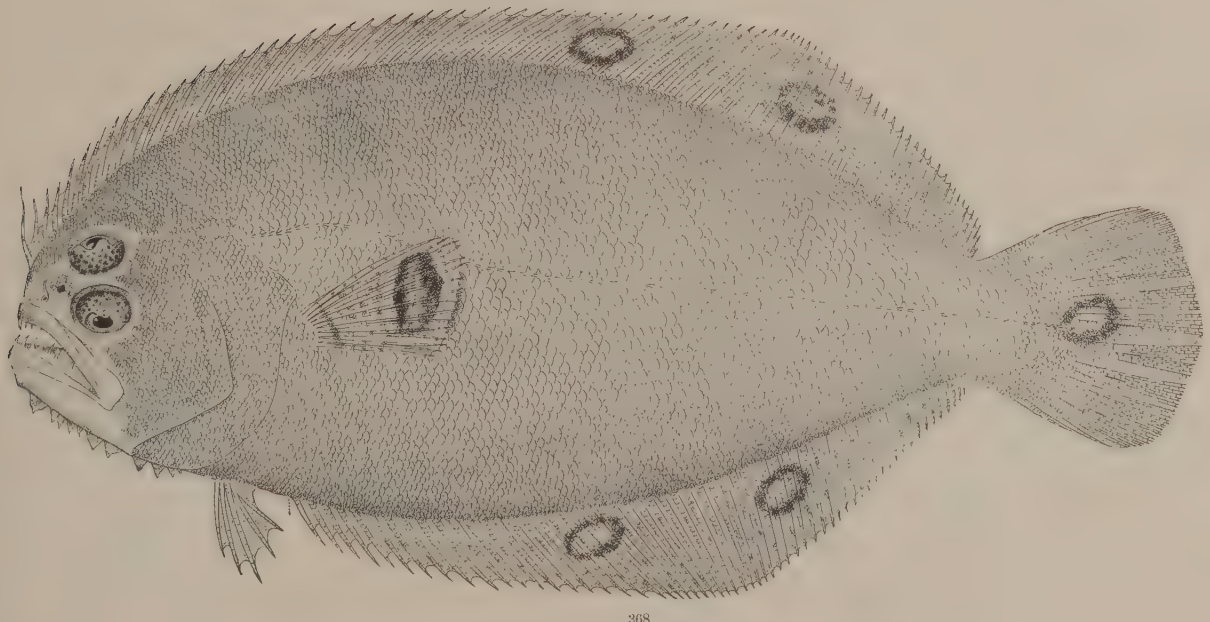
366*b*

366*a*

366*a*, *b*. CITHARICHTHYS ARCTIFRONS. (p. 442.)



367

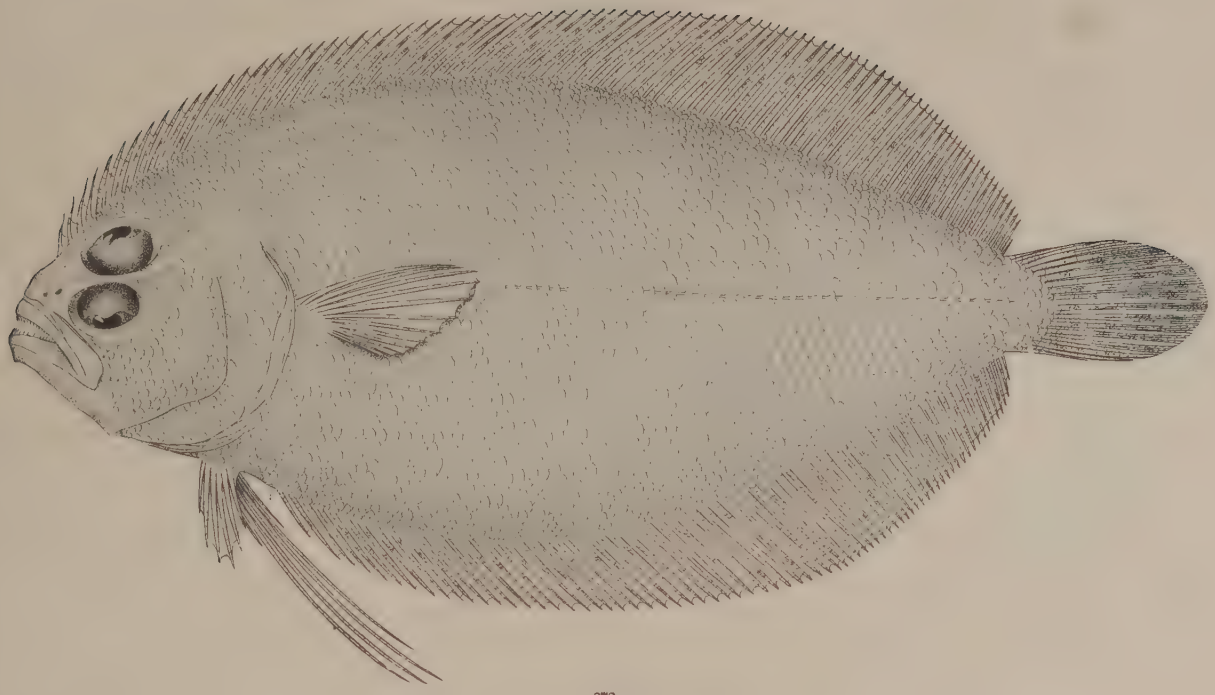


368

367. Hippoglossoides platessoides. (p. 438.)

368. Cyclopsetta fimbriata. (p. 451.)

369*a*, *b*. CITHARICHTHYS UNICORNUS. (p. 444.)
370. CITHARICHTHYS SPILOPTERUS. (p. 447.)
371. SCIANECTES MACROPHTHALMUS. (p. 440.)



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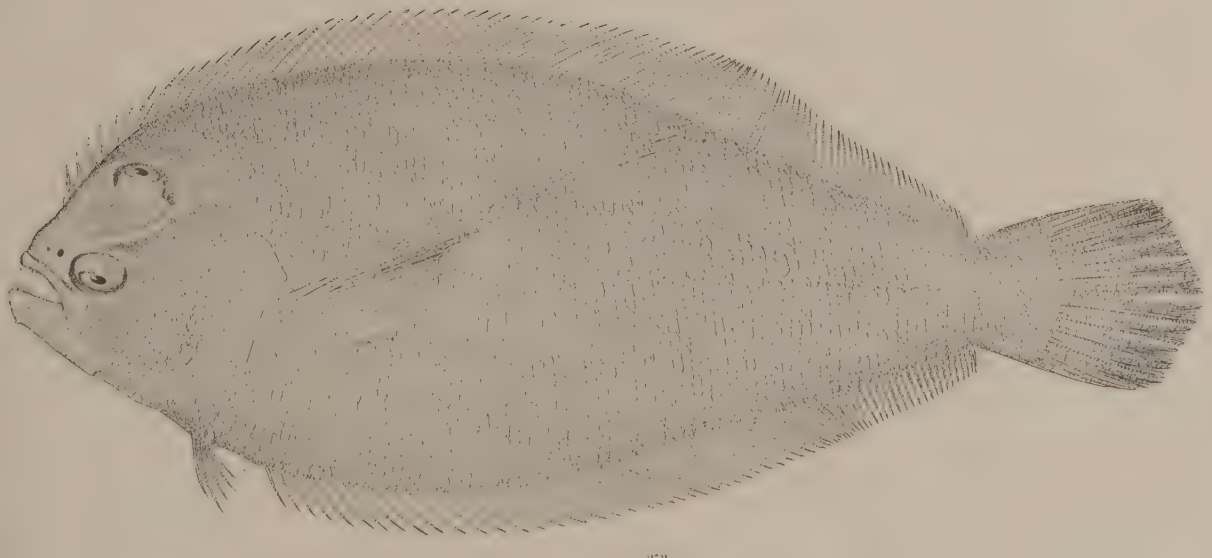
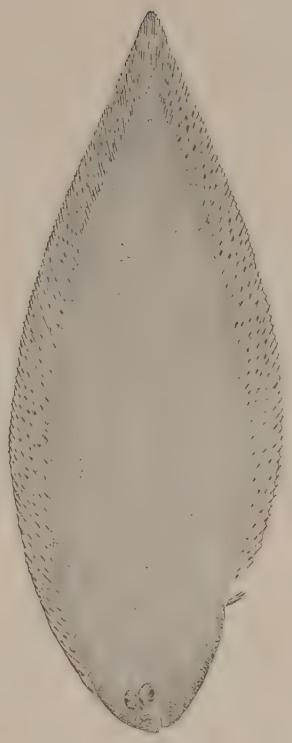
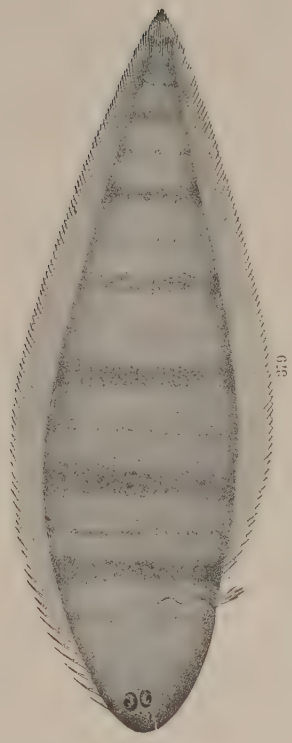


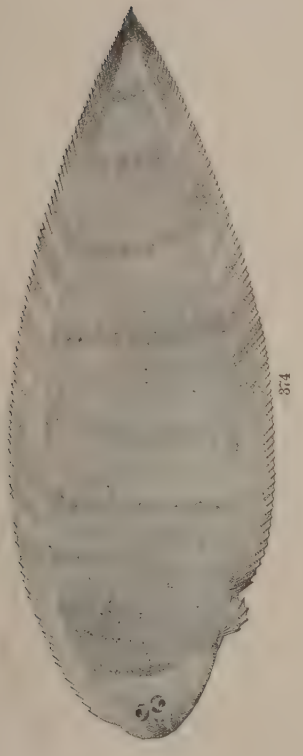
373

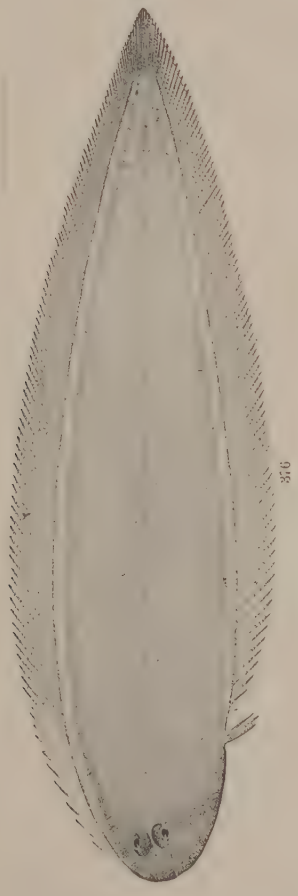
372. TRICHOPSETTA VENTRALIS. (p. 440.)

373. CITHARICHTHYS PÆTULUS. (p. 448.)

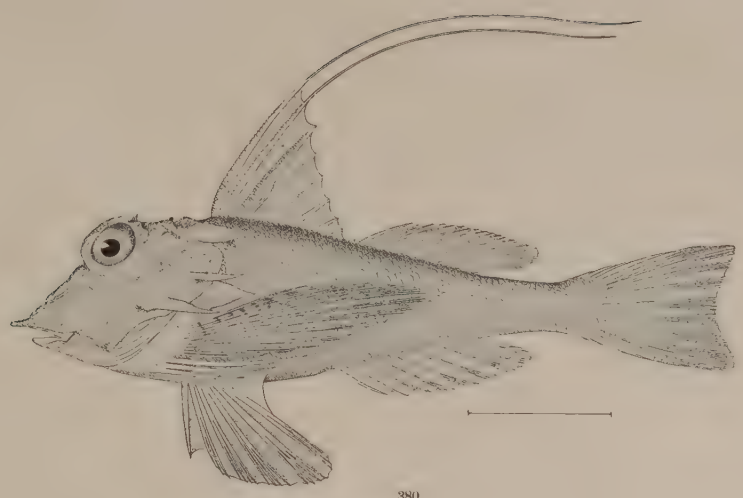








374. APHORISTIA FASCIATA. (p. 458.)
375. APHORISTIA NEBULOSA. (p. 458.)
376. APHORISTIA MARGINATA. (p. 459.)
377. APHORISTIA PIGRA. (p. 460.)
378. APHORISTIA DIOMEDIANA. (p. 460.)
379. APHORISTIA PUSILLA. (p. 461.)



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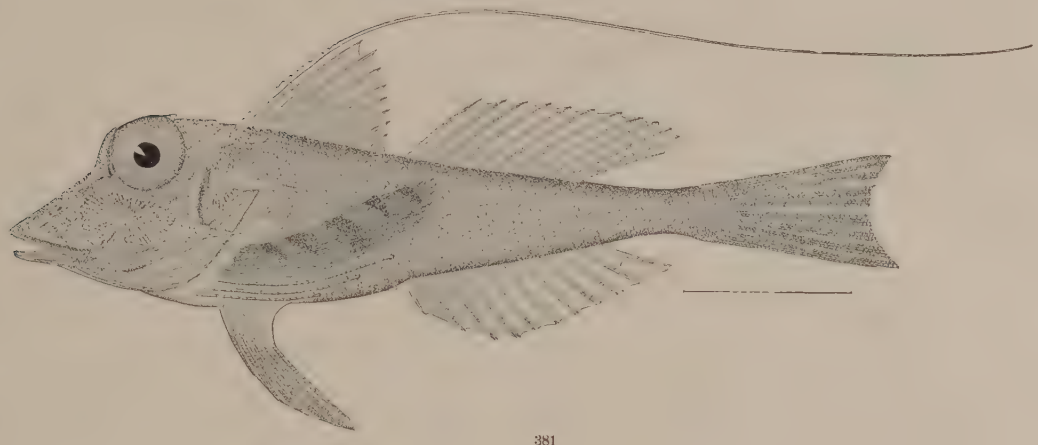
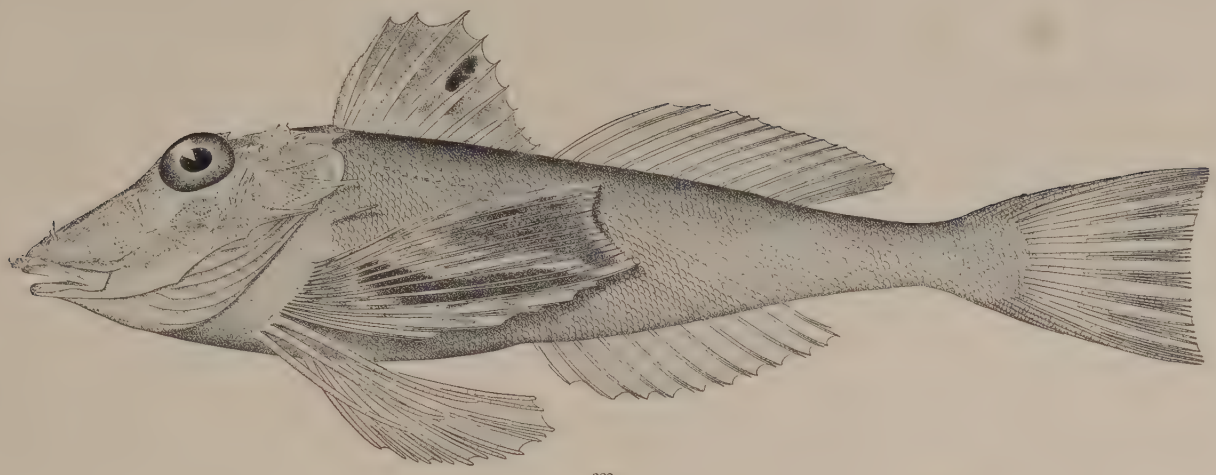


381

382

380. PRIONOTUS MILITARIS. (p. 464.) 381. PRIONOTUS EGRETTA. (p. 465.) 382. PRIONOTUS ALATUS. (p. 467.)



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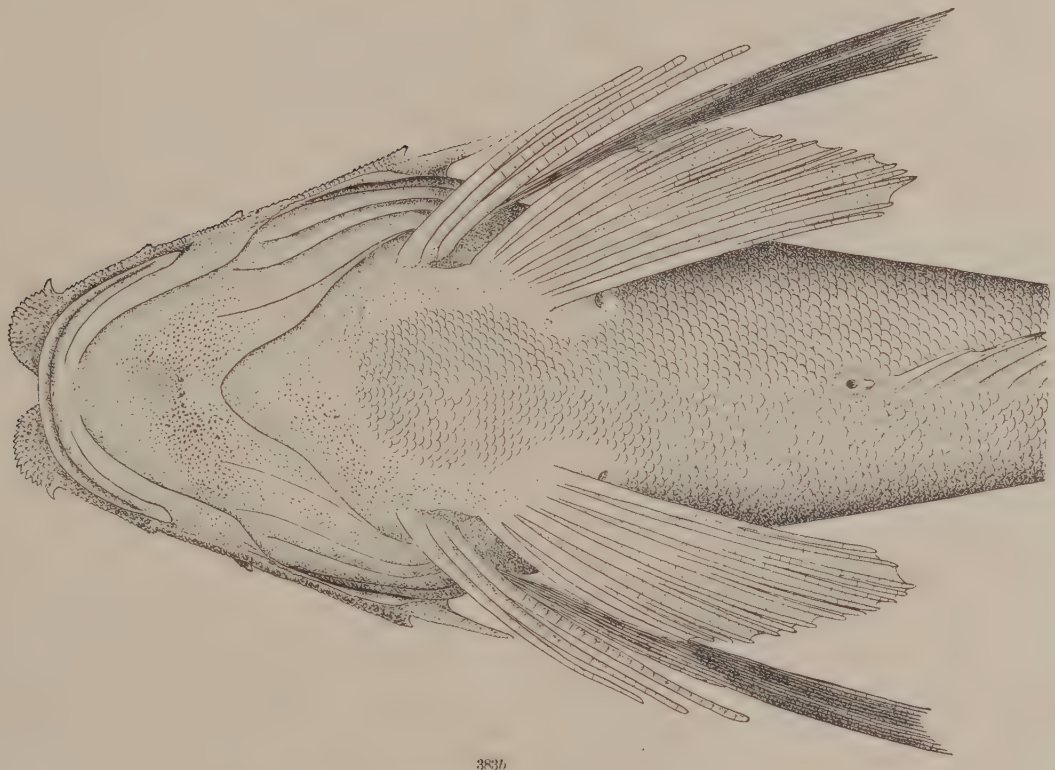
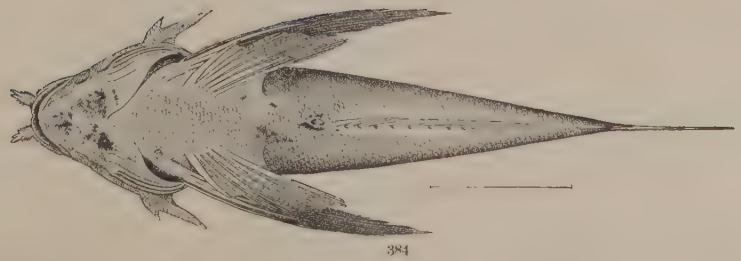


383*b*

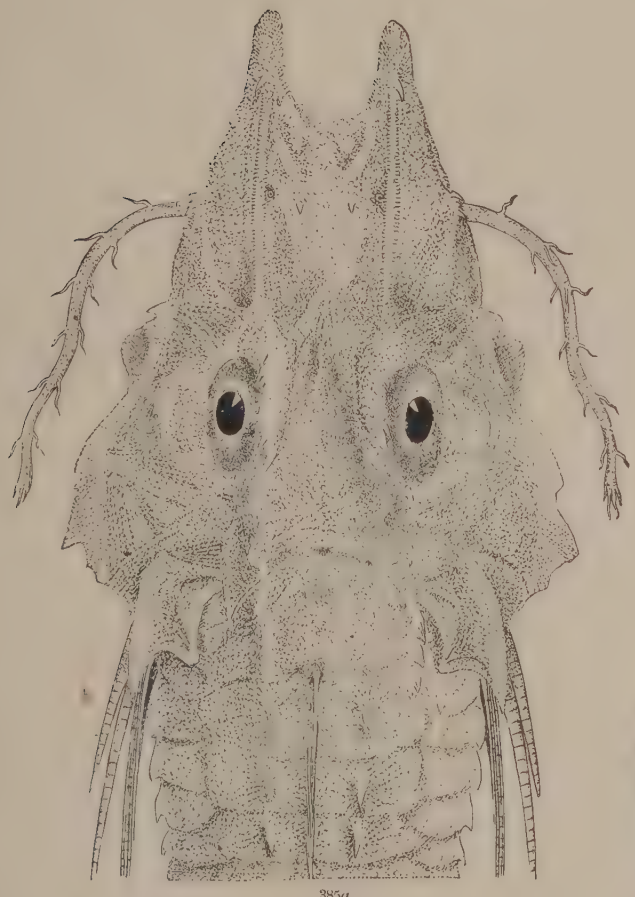


384

383, 383*b*. PRIONOTUS TRINITATIS. (p. 468.)

384. PRIONOTUS MILITARIS. (p. 464.)

385

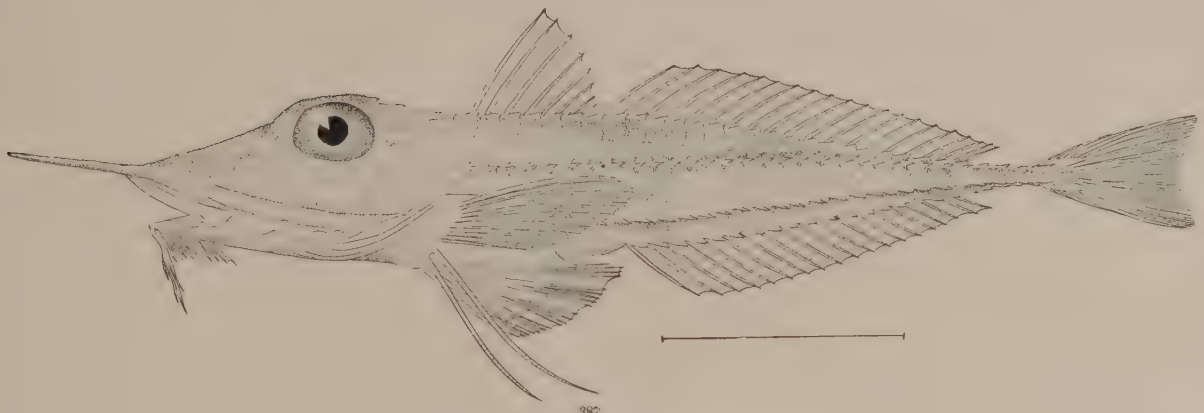


385*a*

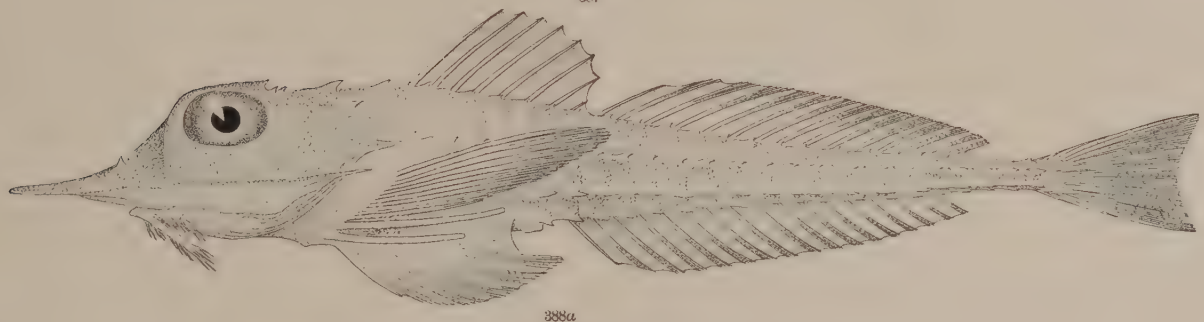
385*b*

385, 385*a*, *b*. PERISTEDION MINIATUM. (p. 470.)

386



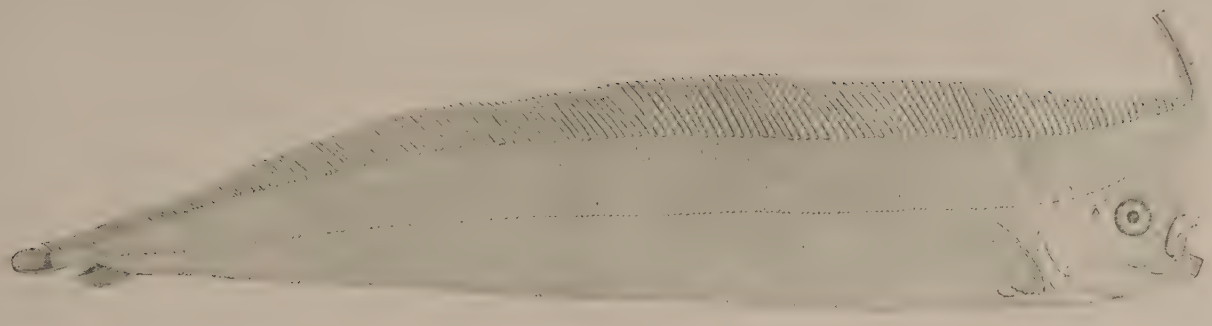
387



388*a*

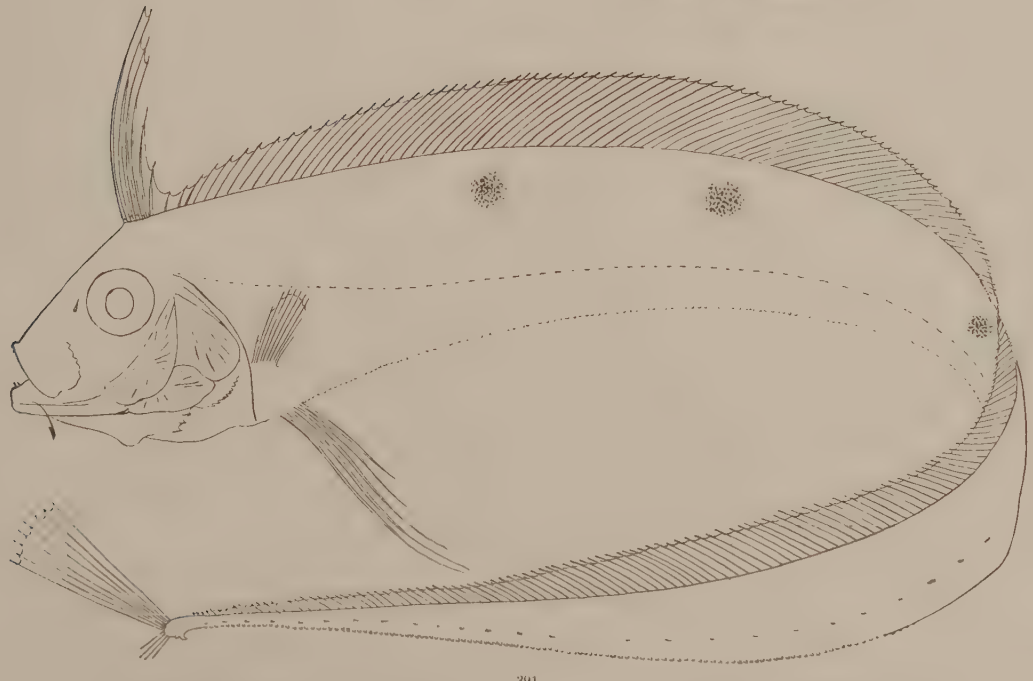
388*b*

386. PERISTEDION LONGISPATHA. (p. 472.) 387. PERISTEDION GRACILE. (p. 473.)
388*a*, *b*. PERISTEDION PLATYCEPHALUM. (p. 474.)



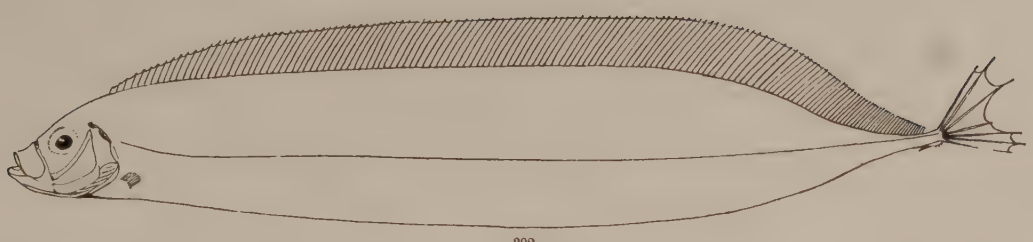
389

390

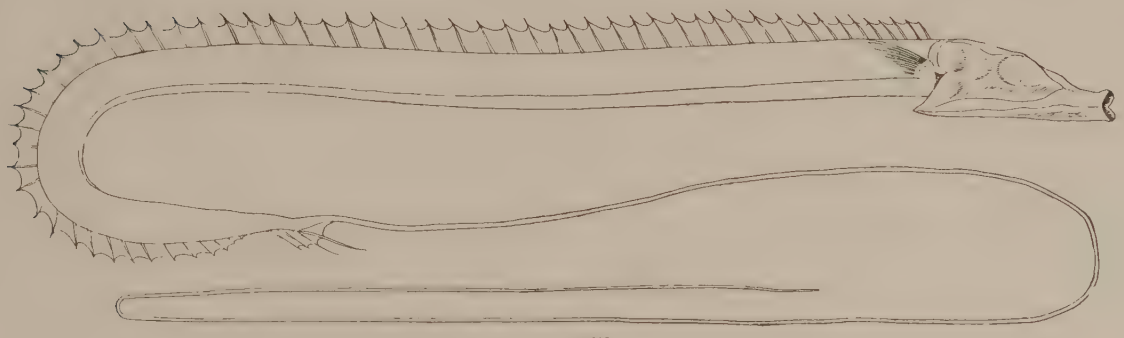


391

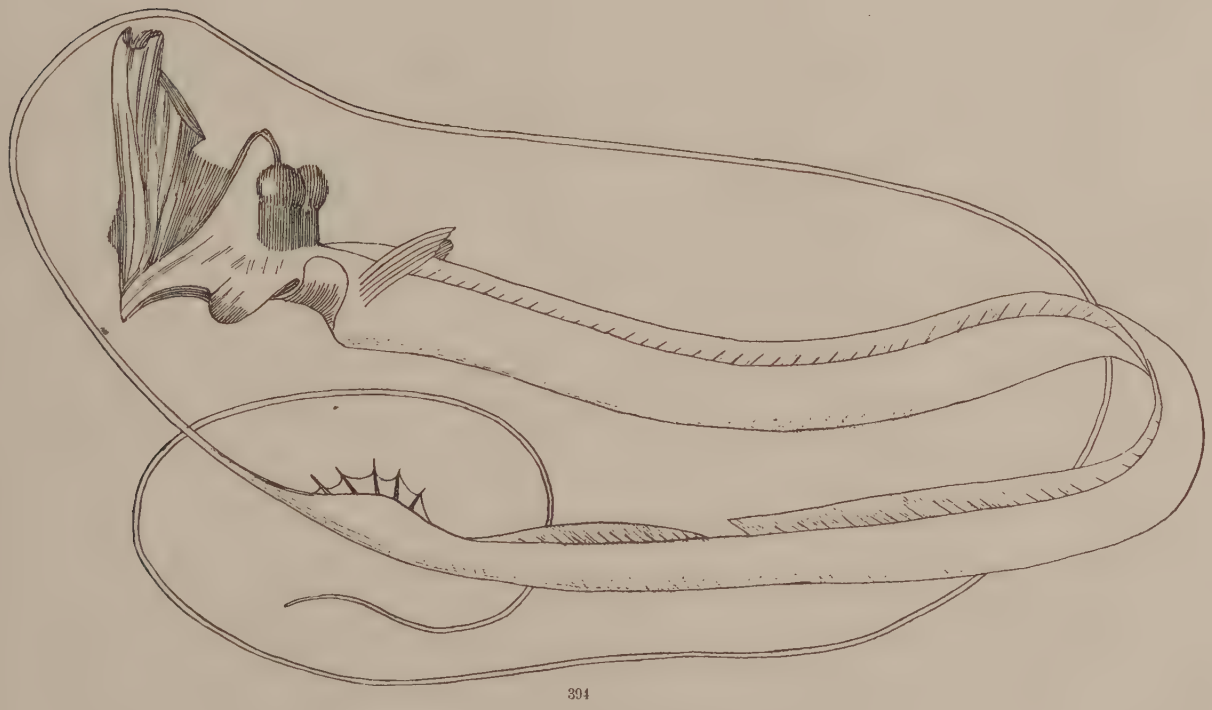
389. LOPHOTES CEPEDIANUS. (p. 349.) 390. LOPHOTES CAPELLEI. (p. 351.)
391. TRACHYPTERUS IRIS. (p. 477.)



392

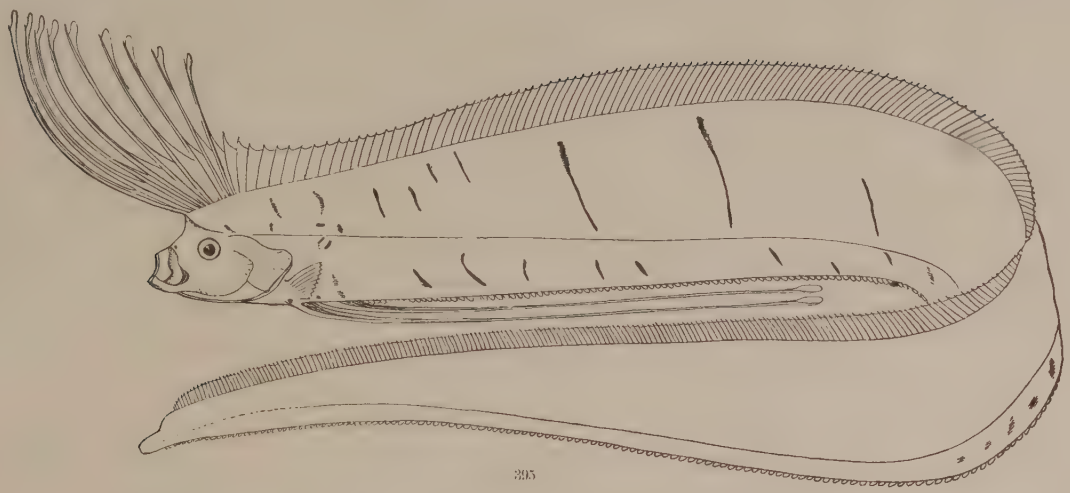


393



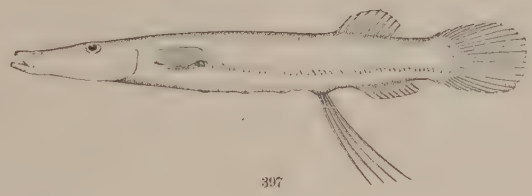
394

392. Trachypterus arcticus. (p. 479.) 393, 394. Stylephorus chordatus. (p. 482.)



395

396



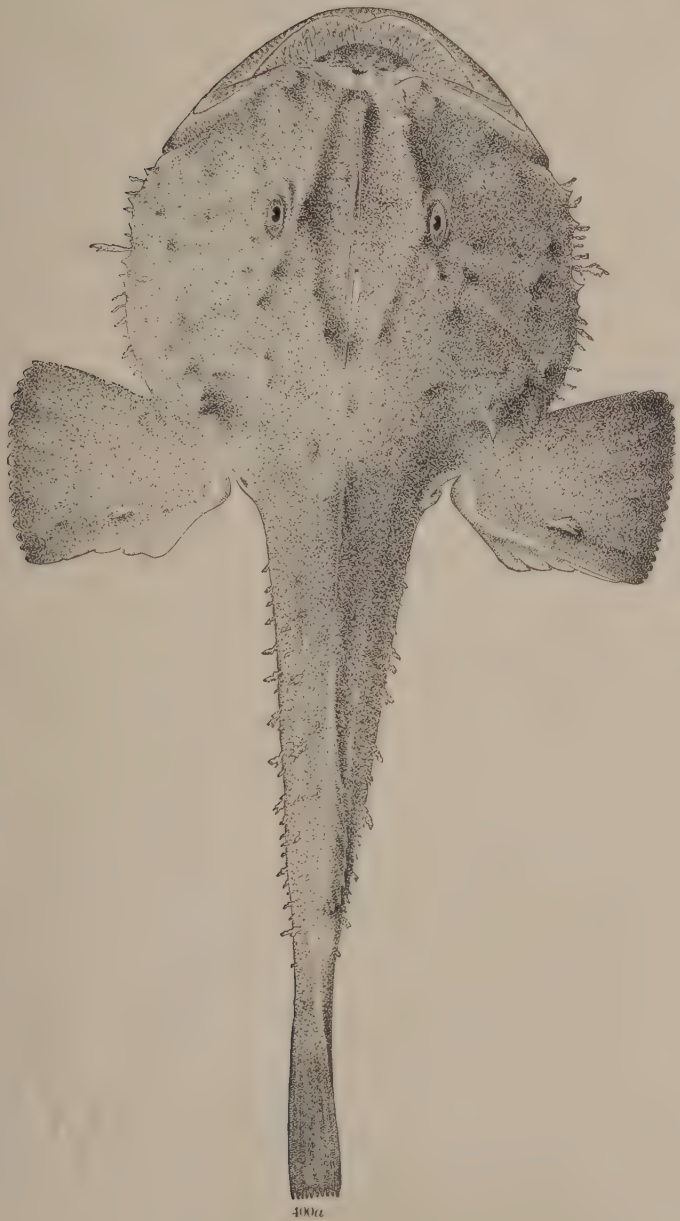
397

398

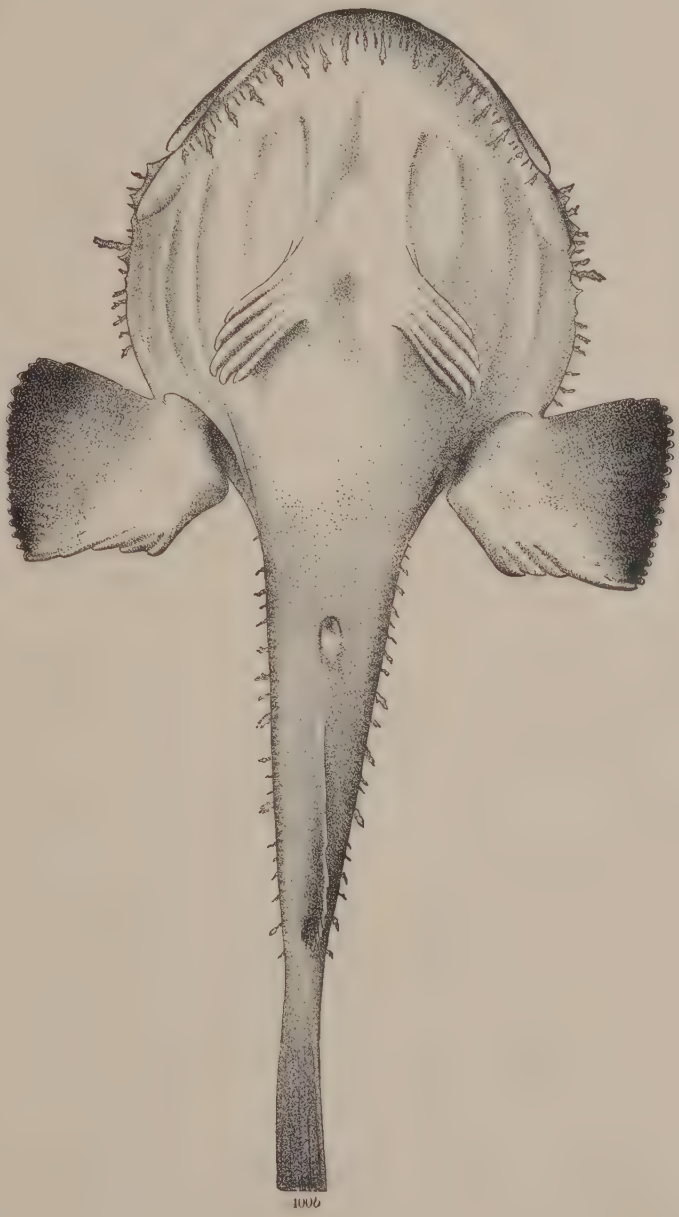
399

395. Regalecus glesne. (p. 480.) 396. Macrorhamphosus scolopax. (p. 483.) 397. Aulostoma longipes. (p. 484.)
398. Chaunax pictus. (p. 487.) 399. Ceratias Holbölli. (p. 489.)

400

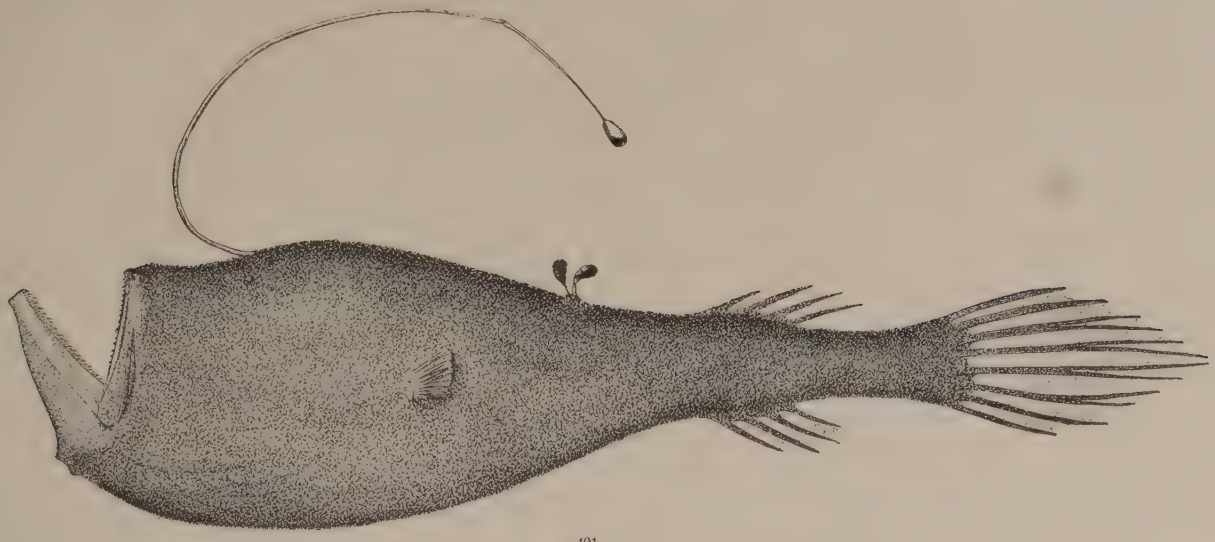


400*a*

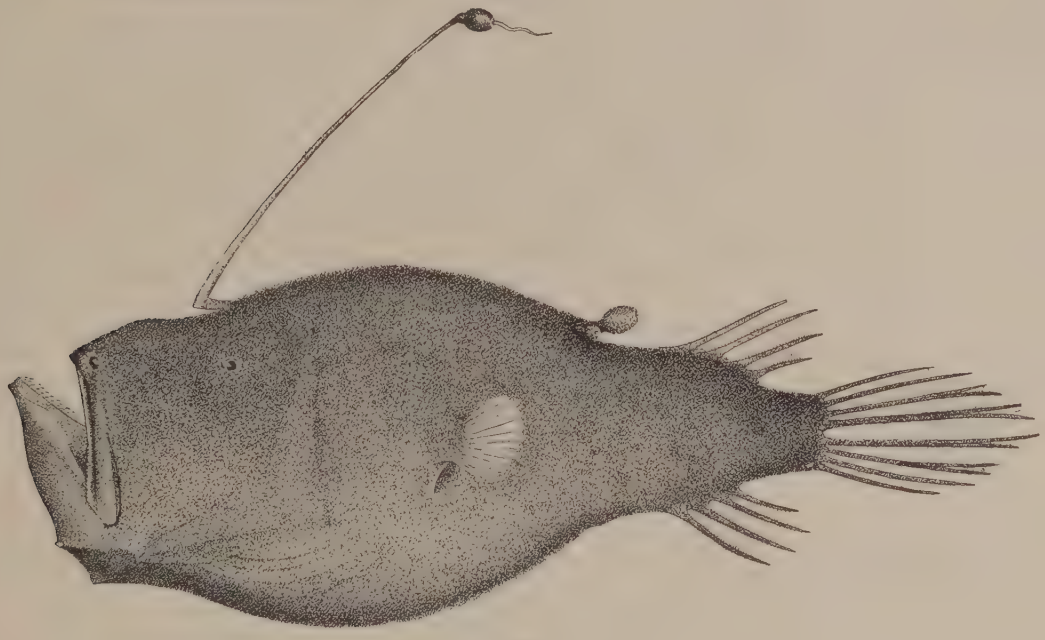


400*b*

400, 400*a*, *b*. LOPHIUS PISCATORIUS. (p. 485.)

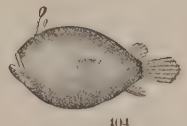


401



402

403

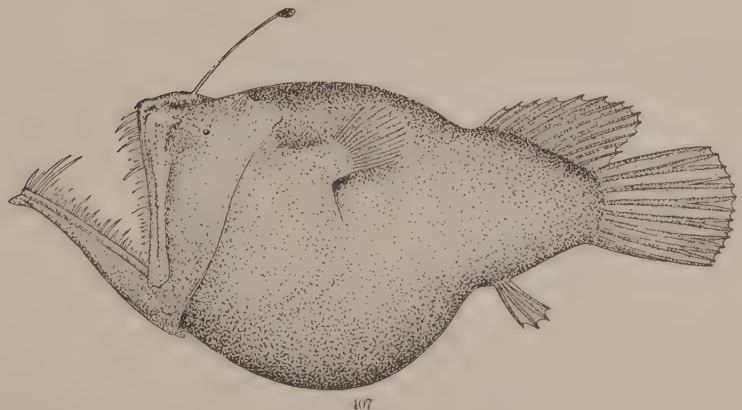


404

401. Mancalias Shufeldtii. (p. 490.)
402. Cryptopsaras Couesii. (p. 491.)
403. Halieutæa stellata. (p. 499.)
404. Paroneirodes glomerosus. (p. 493.)

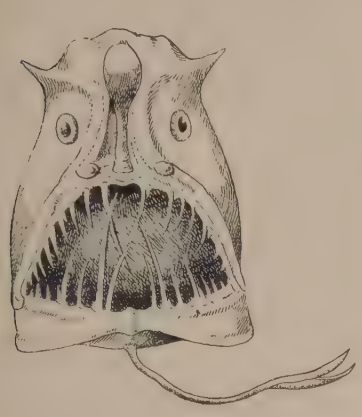
405

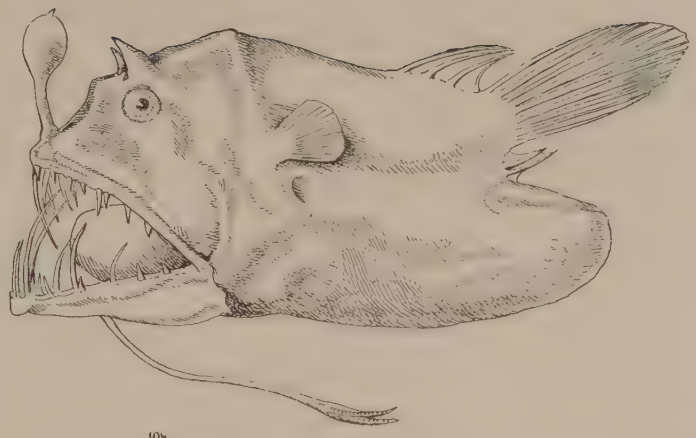
406



407

405. Corynolophus Reinhardtii. (p. 494.) 406. Melanocetus Johnsonii. (p. 494.)
407. Liocetus Murrayi. (p. 495.)





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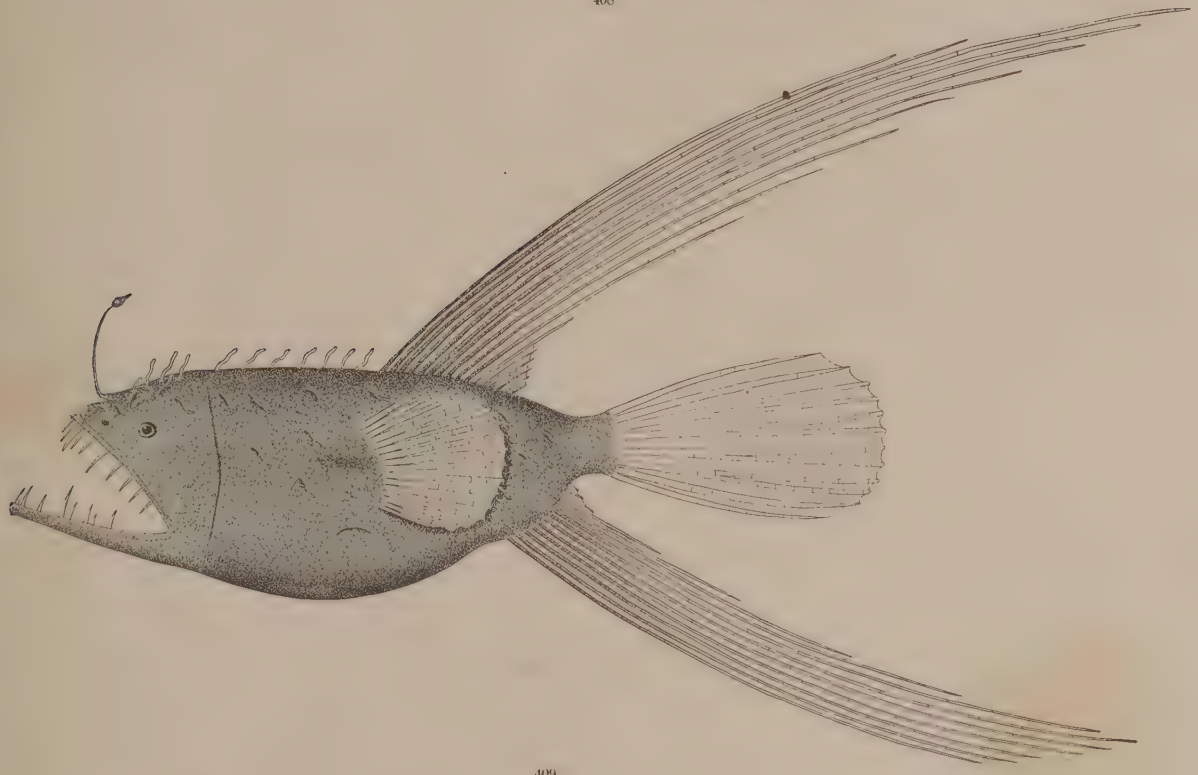

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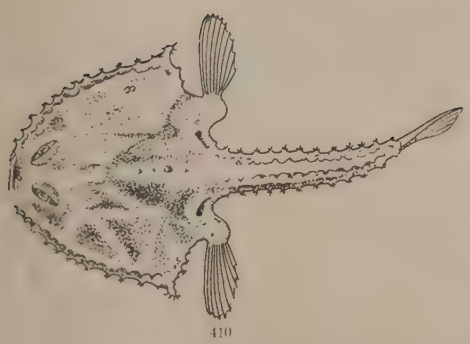

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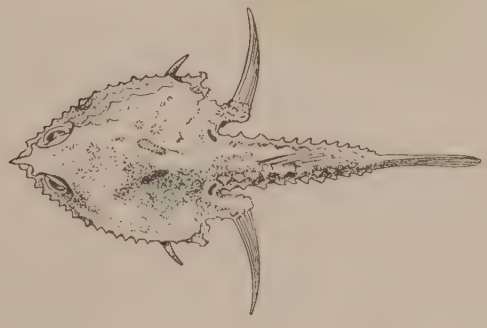
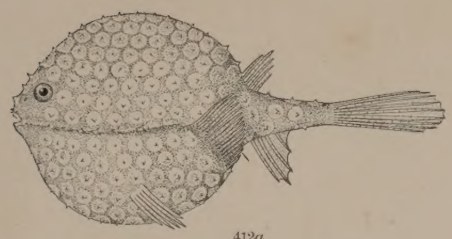


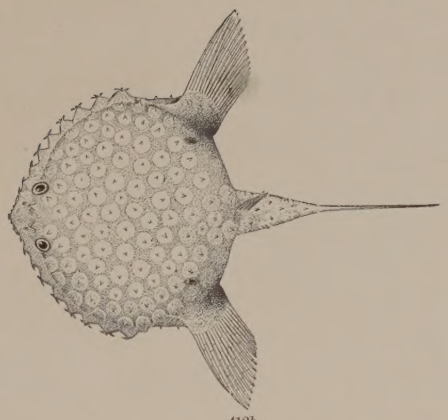
411

408. Linophryne lucifer. (p. 496.)
410. Halieutæa coccinea. (p. 500.)

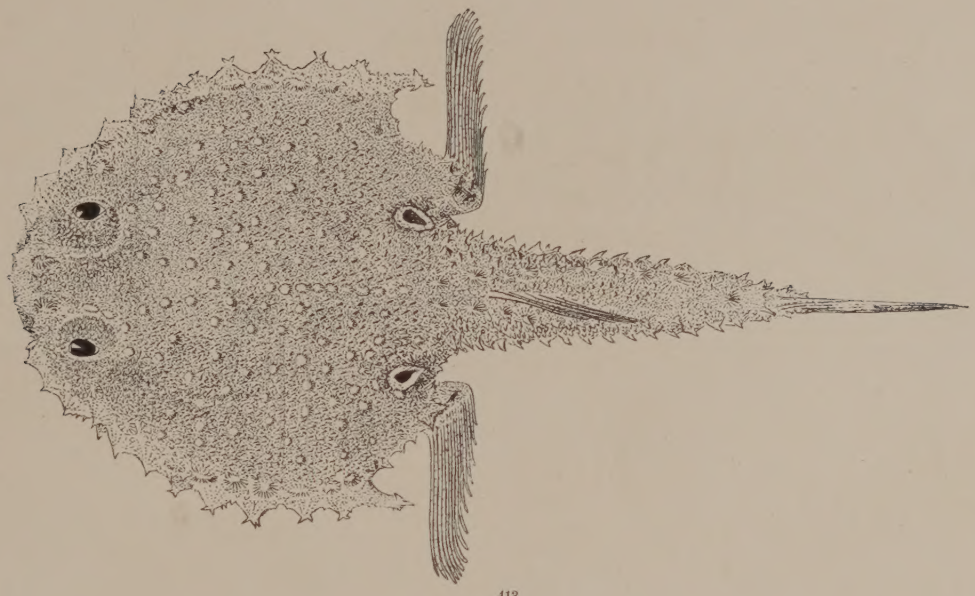
409. Caulophryne setosus. (p. 496.)
411. Malthopsis luteus. (p. 529.)



412*a*



412*b*



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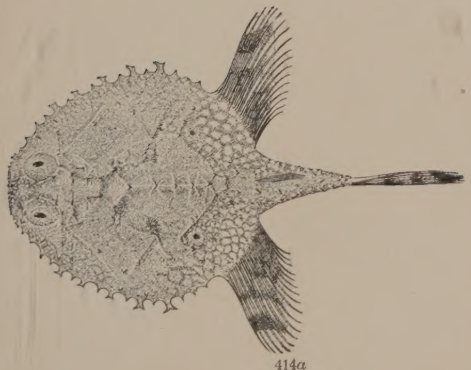
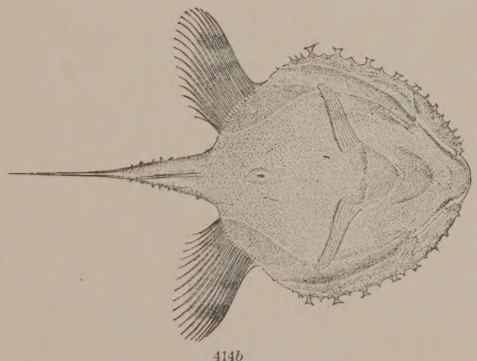
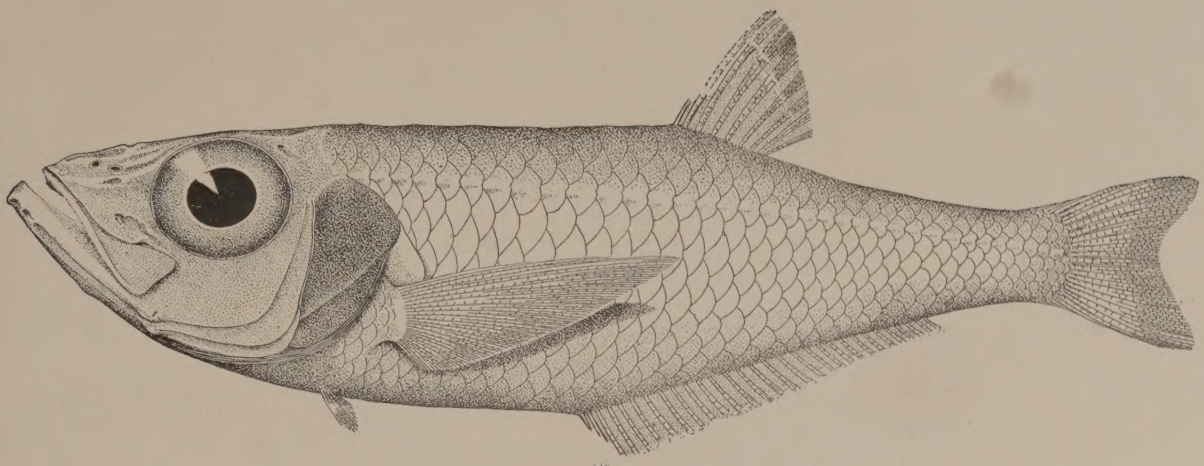


414*a*



414*b*

412*a*, *b*. HALIEUTELLA LAPPA. (p. 500.) 413. DIBRANCHUS ATLANTICUS. (p. 501.)
414*a*, *b*. HALIEUTICHTHYS ACULEATUS. (p. 504.)



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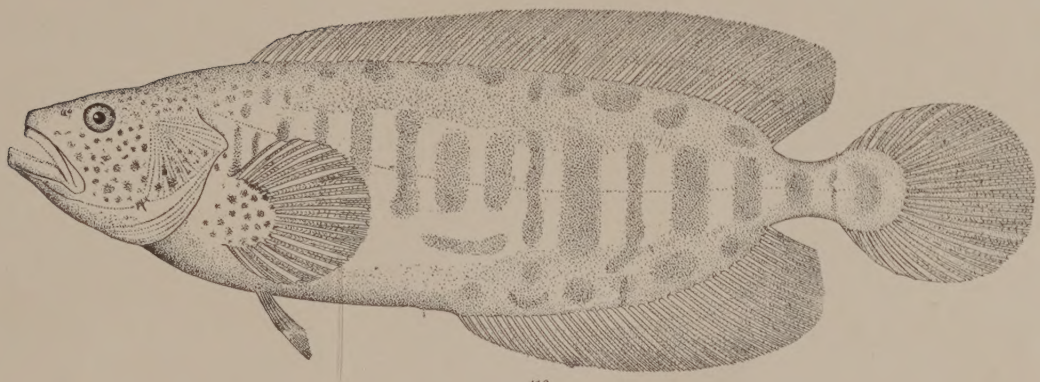

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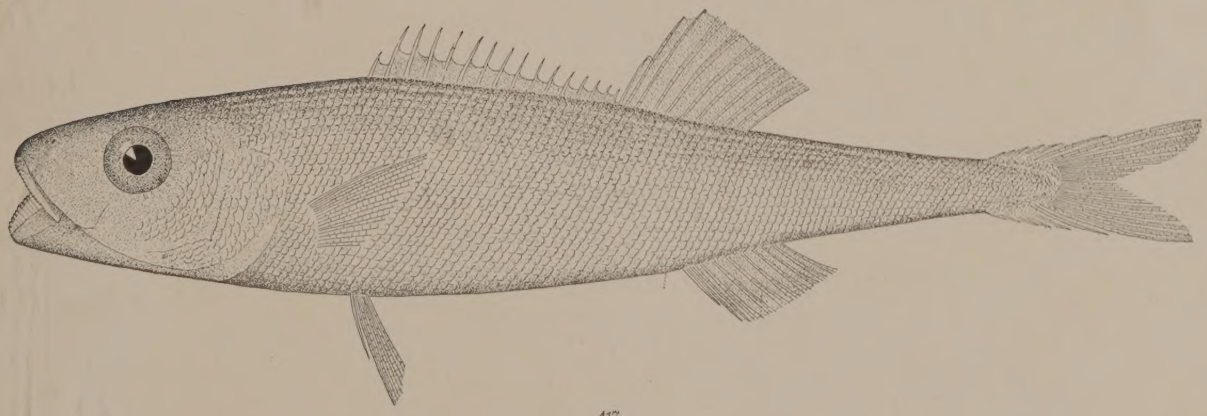

417

415. Bathyclupea argentea. (p. 190.) 416. Schedophilopsis spinosus. (p. 216.)
417. Tetragonurus Cuvieri. (p. 230.)